

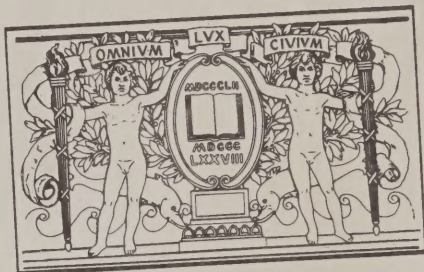
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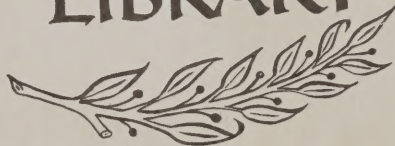
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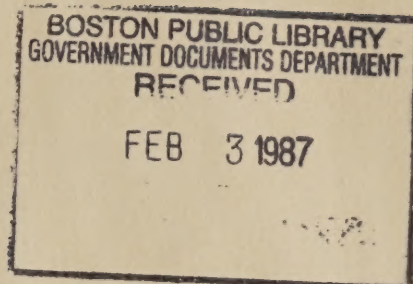


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A HANDBOOK ON
FINANCING AIR POLLUTION CONTROL IN BOSTON

PREPARED FOR
BOSTON REDEVELOPMENT AUTHORITY

SEPTEMBER 1981

ICF

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A HANDBOOK ON
FINANCING AIR POLLUTION CONTROL
IN BOSTON

Prepared for:

Boston Redevelopment Authority

By:

ICF Incorporated

September 1981

PREFACE

This handbook was prepared by ICF Incorporated under a contract from the Boston Redevelopment Authority. This handbook would not have been possible without the support and guidance of the Boston Redevelopment Authority, the Economic Development and Industrial Corporation of Boston, the Massachusetts Industrial Finance Agency, and the Air Quality Technical Assistance Steering Committee, comprised of Robert Ryan, Director of the Boston Redevelopment Authority, Brian Dacey, Director of the Economic Development and Industrial Corporation of Boston, and Eugenie Beal, Executive Director of the Boston Air Pollution Control Commission. ICF thanks them for their assistance. ICF is especially grateful to Ms. Vivien Li, Project Manager, Ms. Ann Hoffman, Mr. Henry Price, and Mr. David Richardson.

The names, businesses, dates, and places contained in Chapter 3 are fictitious and any resemblance to persons living or dead is unintentional and totally coincidental. The mention of any company in this report is not to be considered an endorsement by the Boston Redevelopment Authority, any other government agency, or ICF Incorporated.

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Chapter 1

INTRODUCTION

A. BACKGROUND

This handbook is part of a two-year project undertaken by the Boston Redevelopment Authority and other Boston City agencies pursuant to a federal grant. The purpose of the project is to examine innovative means of meeting air pollution regulations while accommodating economic growth. It focuses on helping private businesses in Boston incorporate innovative air pollution control techniques into their operations. To that end, the BRA has divided the project into three phases. Phase I was designed to investigate the opportunities in Boston for using innovative means of meeting the required levels of air pollution control, called "controlled trading."¹ Phase II identified and analyzed strategies the city of Boston could take to encourage controlled trading and to allocate emission reduction credits² so as to promote economic development. Phase III, of which this manual is a part, concentrated on assisting firms in taking advantage of the controlled trading program.

In Phase III, the BRA has rendered technical assistance to selected industrial firms in Boston. In order to allow a wide range of firms to benefit from such assistance, the BRA has also contracted to have two companion handbooks prepared. One, A Handbook on Air Pollution Control Options in Boston, written by ETA Engineering, Inc., deals with the engineering and technical aspects of air pollution control. It is intended to be used in conjunction with this manual, which examines how air pollution control can be financed.

The BRA expects that firms planning pollution control projects will first read A Handbook on Air Pollution Control Options in Boston. This manual describes, for the major industries in Boston, what level of pollution control is necessary, what equipment is required to reach that level, what it can be expected to cost, and what opportunities for controlled trading might exist. By using the information contained in that manual, firms can investigate the range of options for meeting their pollution control requirements and determine which is the least expensive option. Even this least expensive option must be financed, however, and that is where this handbook can be of assistance. It describes and compares the available methods (both private and publicly assisted) of financing air pollution control, gives examples of their applicability, and shows how firms can apply for public financing programs.

¹Controlled trading is described in Section C of this chapter.

²Emission reduction credits are discussed in Section C of this chapter.

This chapter is an introduction to this handbook. In the next section of the chapter, the purpose and structure of the handbook are laid out in a little more detail. The third and final section describes controlled trading and how it can help Boston firms.

B. WHY A HANDBOOK?

This handbook is designed to help industry in Boston find financing for projects involving air pollution control. For a variety of reasons which are discussed below, these projects are often difficult and expensive to finance through traditional means. Despite this fact, there can be a significant demand for such projects. The Clean Air Act and its regulations require air pollution control. Good, sound business judgment can also lead to a decision to install pollution control, as part of an effort to expand, to modernize, or simply to improve community relations. Such efforts are not only beneficial to the companies involved, but to the entire Boston community as well. It is therefore in the best interests of the community that businesses be able to find financing for air pollution control at the lowest cost and for the most attractive term.

Many sources of financing may be available to Boston firms.³ The Economic Development and Industrial Corporation of Boston (EDIC/Boston) is the City's lead agency for industrial development and can help a business determine which of these sources is most appropriate for its particular situation. One of the first steps a company in Boston should take after reading A Handbook on Air Pollution Control Options in Boston and evaluating its air pollution control options is to set up a meeting with an EDIC/Boston representative. EDIC/Boston is not an ombudsman, but it will help qualifying and needy companies find financing by working with them from the initial screening meeting through to closing. This handbook is designed to be used in conjunction with EDIC/Boston's guidance; it explains:

- the differences among the major financing tools which EDIC/Boston utilizes;
- some of the issues that determine which financing method should be used; and
- the process required to obtain such financing.

Although this handbook deals with financing problems which involve air pollution control, almost all the major financing methods described here are also available for other financing needs. Most of these methods are

³This handbook deals only with the major financing programs available to Boston firms. The discussion therefore centers around the agencies and programs serving the City of Boston. Appendix B lists some of the Massachusetts programs not investigated in the text and some of the agencies that are available to help firms in other large Massachusetts cities find financing.

appropriate for financing not only air pollution control, but water pollution control and other fixed assets, including equipment, having nothing at all to do with pollution control.

The manual is structured to allow the user to delve as deeply into pollution control financing as desired. This chapter introduces this manual, discusses its purposes and structure, and gives an overview of controlled trading. The next chapter, Chapter 2, introduces and examines in detail the financing methods considered here. Both private and publicly supported (government-assisted) methods are listed. Included in that discussion are the conditions and limitations applicable to each method, its costs, interest rate, term, advantages and disadvantages, and the processing time required for each. That chapter also compares the most important aspects of the public financing methods: interest rate, term, down payment, and application processing time.

Chapter 3 introduces a number of hypothetical firms with pollution control financing needs. The firms described present a broad range of businesses in terms of size, industry, and air pollution control needs. All are typical of Boston firms and the financing problems they face. These hypothetical situations have been designed to highlight the differences among the public financing programs discussed in this manual and to show how these programs can be used in real-world situations.

Chapter 4 sets out the application process for the government programs, describing the information which firms will be expected to supply and the help that they can expect from EDIC/Boston with respect to these programs. Since the income tax aspects of any transaction can be of great importance, the tax implications of pollution control financing are discussed in the text, where applicable, and summarized in Appendix A. Appendix B lists some of the Massachusetts financing programs that are available to firms outside of Boston.

The structure of this manual is shown in Exhibit 1-1. This layout permits it to be used in a number of different ways:

- (1) A firm looking for information on one specific financing program may find that program described in Chapter 2;
- (2) A firm may read about the full range of programs in Chapter 2 and compare the different aspects of these programs;
- (3) A firm may also look for a hypothetical company in Chapter 3 that has financing needs similar to its own and see (a) how the firm can benefit from the various public programs and (b) what issues are important in determining which program should be utilized; and
- (4) Finally, a firm may use Chapter 4 to learn what information it will be expected to supply in applying for a particular program discussed in Chapter 2 and how EDIC/Boston will help it in the application process.

EXHIBIT 1-1

STRUCTURE OF THIS MANUAL

Chapter 1: Introduction to the manual

Chapter 2: The available financing methods

A. Privately obtained funds

1. Working capital
2. Bank loans
3. Sale of equity capital

B. Publicly assisted financing programs

1. Small Business Administration (SBA) 503 loan program
2. SBA 502 loan guarantee program
3. Boston Local Development Corporation (BLDC) Targeted Revolving Loan Program
4. SBA 7(A) loan guarantee program
5. Industrial revenue bonds
6. SBA-guaranteed industrial revenue bonds

C. A comparison of the public programs in terms of interest rate, down payment, length of term, and application processing time

Chapter 3: Six hypothetical situations which are used to show how EDIC/Boston matches financing programs to specific financing needs

Chapter 4: The application process for the six public programs

Appendix A: Summary of the income tax implications of pollution control financing

Appendix B: List of other financing programs

It should be noted that a firm is not expected to use this manual to choose among the programs described. EDIC/Boston will work with the firm to make the appropriate match. The information presented here will help a firm understand the available programs, how EDIC/Boston will go about recommending one, and what will be expected of the firm when it is applying for financing. An effort has been made to avoid both jargon and acronyms (a word formed by initials) so that any businessperson, even though completely unfamiliar with government agencies, can understand the programs described.

The next and final section of this chapter describes what controlled trading is and how it can help Boston firms.

C. CONTROLLED TRADING

The traditional method used to improve air quality in this country has been to set limits on emissions from individual sources of air pollution. Recently, however, an alternative approach, called controlled trading, has been permitted. Instead of requiring each source to reduce its own emissions, the U.S. Environmental Protection Agency (EPA) has allowed one source to reduce emissions on behalf of another. This approach reflects EPA's concern not only with overall air quality, but also with the economics of air pollution control.

Why is controlled trading important? First of all, it permits firms to reduce their pollution control costs. Because of differences in plant and equipment size, process type, design, and age, the costs for different sources to control emissions differ significantly. If it costs Firm A \$1,000 per ton to reduce emissions but it only costs Firm B \$100 per ton for the same size reduction, it is more cost-effective for Firm B to reduce pollution.

Second, in some areas of the country, controlled trading is the only mechanism that allows new or expanding major sources of air pollution to be built. In those areas, the air quality is already in violation of the national standards and new or expanding major sources are not permitted to further degrade air quality. Controlled trading allows economic growth if other pollution sources in the area reduce emissions sufficiently to make up for the new emissions that will be added.

Controlled trading is not a single policy or regulation. Rather, it is a number of specific EPA policies which are summarized in this section: the bubble policy, the offset policy, netting, and the banking and trading of emission reduction credits.

The bubble policy allows a group of sources of air pollution (either at one plant or several plants) to be treated as if they were under an imaginary bubble. Instead of imposing emission limitations on each source, only the total emissions of all the sources in the bubble are regulated. Thus, if it is more expensive to control emissions at Plant A than Plant B, but Plant A needs a reduction in emissions to fulfill air quality regulations, then Plant A and Plant B may agree to form a bubble. Plant B will then reduce emissions

on Plant A's behalf, usually in exchange for a payment of some kind from Plant A. If the difference in control costs between the two plants is sufficiently high, both Plant A and Plant B can benefit greatly (Plant A by paying less for the required emission reduction; Plant B by making a profit on the transaction). Note that bubble transactions are purely voluntary.

The offset policy, on the other hand, is not voluntary. It establishes requirements for new or expanded major sources to be built in areas of the country that have not yet attained the national air quality standards. Before this policy was adopted, new or expanding major sources could not be built in these areas if they emitted the pollutants for which the area had not yet attained the national standards. The offset policy now allows construction of major sources in these areas as long as other sources in the area reduce their emissions sufficiently. These reductions can thus offset the increase in emissions which will result from the new or expanding major source.

Netting is another regulatory reform that can save firms money. Ordinarily, a firm that is expanding or modernizing its plant may be subject to "New Source Review" requirements if the change will add a certain minimum amount of air pollution. These requirements are usually time-consuming and costly. Netting permits the firm to subtract any overall reductions in emissions it has had elsewhere in the plant from the amount of pollution the alteration will add. The "net" amount of increased pollution is used to determine if New Source Review is required. If the reductions elsewhere in the plant are large enough, costly New Source Review can be avoided.

The banking and trading of emission reduction credits carries the three regulatory reforms just discussed one step further. Emission reduction credits (ERCs) are reductions in emissions beyond those required by law that have been certified by the appropriate local agency. ERCs may be created by additional pollution control equipment, process changes, production curtailments, or even shutdowns. Once they are properly certified, they can be used in a bubble or as an offset, either at the plant at which they were created or at other plants. They can also be used for netting, but only at the plant at which they were created. The main advantages of ERCs are (1) they can be kept (banked) for future use or sale, (2) they can be transferred (traded) to other firms, and (3) the amount of reduction in emissions that they represent is established by the certification process, facilitating their use or sale.

All of these regulatory reforms add flexibility to a firm's strategy for complying with air quality regulations and can potentially result in significant savings in pollution control costs. Before a firm can utilize these reforms, however, the state and local authorities must permit their use. Since both Boston and Massachusetts are currently considering adopting these reforms, Boston firms may soon be able to take advantage of them."

"For information on what controlled trading activities are permitted in Boston, contact the Boston Redevelopment Authority, Boston City Hall, 9th Floor, 1 City Hall Square, Boston, Massachusetts 02201, (617) 722-4300, or the Boston Air Pollution Control Commission, 182 Tremont Street, Sixth Floor, Boston, Massachusetts 02111, (617) 725-4416.

Even though these reforms can save firms money, compliance with the applicable regulations will still be a major expense for many firms. In the chapters that follow, this manual describes how firms can finance their air pollution control costs:

Chapter 2

FINANCING METHODS

This chapter describes in detail the major methods available for financing projects involving air pollution. The discussion is divided into three parts:

- A. Privately Obtained Funds,
- B. Publicly Assisted Financing Programs, and
- C. A Comparison of the Public Programs.

In the section on privately obtained funds, the use of working capital, bank loans, and the role of equity capital to finance projects is covered. The public programs described are the Small Business Administration (SBA) 503 loan program, the SBA 502 loan guarantee program, the Boston Local Development Corporation (BLDC) Targeted Revolving Loan Program, the SBA 7(A) loan guarantee program, industrial revenue bonds, and SBA-guaranteed industrial revenue bonds. The final section in this chapter presents the major features of all of these sources of funds in Exhibit 2-1 in tabular form and compares the public programs on the basis of interest rate, term, down payment, and application processing time.

It should be noted that, for simplicity, the financing methods examined below are all treated separately; however, there is no reason why combinations of more than one method may not be used in certain deals. In fact, such combinations are used quite often and examples are given in Chapter 3.

A. PRIVATELY OBTAINED FUNDS

Before seeking outside help, most firms look at their traditional sources of funding: working capital, bank loans, ordinary bonds, and selling equity (selling a share of the business, such as stock in a corporation). Because ordinary bonds can usually only be issued by large, better-established firms who will have their own financial advisors, they will not be discussed here; certain special kinds of bonds (namely industrial revenue bonds) are more generally available and will be discussed in detail in the next section. This section will concentrate on the other three private sources of capital. For a summary of this discussion, see Exhibit 2-1 at the end of this chapter.

1. Working Capital

We use the phrase working capital here as another name for the funds generated internally by the on-going operations of a firm. Generally, working

capital is the first source of funds that is considered because it only seems proper to most managers to look first to the funds generated by the business to supply the resources needed to keep the firm operating or to expand. Because such funds are internally created, working capital offers the following advantages: (1) there are no conditions which must be fulfilled to obtain financing, (2) there are no pre-established upper or lower limits on how much money can be used (except, of course, how much the firm can generate internally), (3) there are no transaction costs, (4) no collateral is required, (5) the term over which the funds remain available is not limited, (6) there are no restrictions on the items which may be financed, and (7) there are no unnecessary delays in obtaining the funds. In addition, working capital has an advantage over a loan as a financing method since using working capital does not decrease the firm's capacity to take on more debt in the future as a loan might (lenders will simply not advance funds to a firm that has too much debt).

Unfortunately, few firms have sufficient internally generated funds to purchase outright all the land, buildings, and equipment needed to keep functioning and growing. Small projects may be financed this way, but larger ones generally require outside financing. Growing firms with a bright future, in particular, want to preserve their working capital to finance the increases in inventory and accounts receivable which are usually necessary for growth. It is just such firms which are eligible for assistance under the public programs discussed in the next section.

Even if it appears likely that working capital will not be sufficient to finance a proposed project and another form of financing will be used, it is good policy to take stock of how much cash the firm's operations are likely to produce in the future. Such estimates are important not only because bankers and other lenders will want to see them but because any financing that is obtained will have to be serviced (repaid) out of this cash. Management should be aware of how much cash will be left over after paying financing costs to run and, possibly, expand the business. If the cost of debt will be too high to permit the owners to carry out their plans for the company, the time to know this fact is before signing a financing commitment, not after. A firm may be able to meet its financing obligations but end up hamstrung and incapable of expanding or otherwise reacting to meet competition. It is not enough to just be able to meet these obligations; enough of a cushion must be left to meet exigent circumstances.

One final point about internally generated funds deserves mention. If a project is sufficiently small to permit funding from this source, managers often believe that such funds have no "cost" because no interest or transaction costs need be paid. This viewpoint is mistaken, however. If the funds were not used for that project, one of two other uses could be made of them:

- (1) the funds could be used elsewhere in the business or
- (2) the funds could be returned to the owners (as in the form of dividends in a corporation).

In the first case, these funds would certainly be expected to earn some return for the business (if they did not, they should be turned over to the owners, the second option). In the second case, the owner could (and surely would) invest the funds elsewhere for a fair return. In either case, then, the money would be expected to yield a return. To use these funds for the project under consideration, the firm must give up this return. The amount given up may be impossible to estimate, but it is nevertheless a real cost of the investment. Thus, it is incorrect to think of working capital as having no cost.

2. Bank Loans

It has been established that working capital, although an attractive means of financing, is often insufficient to meet all financing needs. Firms often look next to their bank to help them arrange financing. Most growing businesses have ongoing relationships with one or more banks to whom they can turn. Banks can often commit funds in a month or less; it takes even less time to reject a loan application. It is also fairly easy to apply for a loan with a bank that already has financial information on and a working knowledge of a firm's operations. Collateral is negotiable, as is the amount lent. There are usually no processing fees.

The major concern of a lending bank is the credit-worthiness of the debtor. To ensure a firm's continued credit-worthiness, a bank will usually require that the firm's financial condition, as measured by certain financial ratios (such as the ratio of current assets to current liabilities), meet certain minimum requirements over the term of the loan. In addition, when equipment is involved, some fairly strict terms are usually applied. Currently, a down payment in the range of 20 percent is standard, as is a maximum term of five or seven years, depending on the bank (a shorter term decreases the bank's risk but increases the burden on the debtor).

Financing equipment such as pollution control equipment poses a particularly high risk to lenders because this equipment (1) usually does not increase revenues, decrease costs, or increase production capacity and (2) is often highly specialized with decreased value as collateral (it is not nearly as easily saleable as, say, milling equipment or land). Banks will require a higher interest rate to compensate for this higher risk.

The nominal interest rate for small corporate customers can range from prime to three percent over prime, and prime has often been 20 percent or more in 1981.¹ We use the term "nominal" because the actual effective rate of

¹There are actually two "prime" rates at most commercial banks, large business prime (the prime rate quoted in the newspaper) and small business prime (in the neighborhood of 1.5 percent below large business prime). Banks offer small business prime as a customer service to retain small clients and allow them to remain competitive. The clients to whom this rate is available vary from bank to bank, but a typical definition is assets of less than \$1,000,000 and total borrowings of less than \$400,000. The range of prime to prime plus three percent applies to these customers also, the prime baseline is just defined differently.

interest even firms with good credit pay is higher, due to the usual requirement of keeping a "compensating balance" at the bank. Such a requirement can force the firm to keep up to 20 percent² of the loan amount in a bank account, meaning that it pays interest on the full loan amount but only gets to use as little as 80 percent of the loan. Interest payments are tax deductible (principal payments are not), but these factors still make the cost of a bank loan very high.

The high interest rate, short term, and large down payment can make a bank loan infeasible for many businesses. Some firms face the additional problem that they may be prohibited by prior loan agreements from taking on more debt (lenders impose such a condition to ensure that debtors do not over-extend themselves). Lenders rarely object to additional equity (ownership) capital being added, however, since this makes it more likely that the loan will be paid off (the firm now has more funds with which to operate and the lender has priority over owners of the firm in bankruptcy). This form of financing is discussed next.

3. Sale of Equity Capital

The "sale of equity capital" means, simply, selling a portion of the business. In a corporation, it means issuing and selling stock. In a sole proprietorship or partnership, it means taking on a new partner or partners. Such a means of financing a project has these advantages:

- (1) it can be done quickly with a minimum of transaction costs except for legal fees (although a public offering of stock does have additional costs such as underwriting and printing expenses);
- (2) the procedure is very flexible and the sale can be fashioned however the parties desire (the amount of the business belonging to the new owners, the amount and timing of any payments, and their voice in running the enterprise are all negotiable);
- (3) unlike interest on debt, dividends on common stock of a corporation are generally not required to be paid regularly, but only when and in an amount declared by the board of directors; and
- (4) increasing the amount of equity capital in a business usually increases the amount of debt the firm can take on later (with more invested in the firm, lenders find loans to it less risky since it is more likely that they will get their loans paid back).

²A typical compensating balance requirement on a line of credit is to keep at least 10 percent of the credit line in the firm's bank account plus 10 percent of the amount actually borrowed. This will result in a 20 percent requirement when the firm has borrowed the entire amount allowed.

Despite all these advantages, there are some serious drawbacks to raising equity capital. The first and most important to many owners is that they are selling part of their business. This may be desirable if the firm is expanding, but if all that is being acquired is pollution control equipment to maintain present capacity, it does not make financial sense to most businesspeople. Another key problem is that investors are often hard to find, especially ones with whom the present owners want to share the business. Finally, dividends on stock are not tax deductible like interest on debt, making the after-tax cost of a dividend payment higher than the after-tax cost of an equal-sized interest payment. See Appendix A for a discussion of this last issue.

In the end, it will often be the first of these disadvantages that is determinative. Most small businesspeople are in business for themselves because they want to be independent and to be able to reap the full benefits of their success. Most would be reluctant to sell a portion of their business simply to buy pollution control equipment, so this is an option that in many cases is unacceptable to them.

4. How EDIC/Boston Can Help

The three sources of funds just discussed are all usually going to be investigated, to varying extents, by any firm seriously considering any project requiring financing. Often, management will determine that the constraints or disadvantages of each outweighs its advantages. The owner or owners may feel at a dead end. But they are not. They should turn next to the Economic Development and Industrial Corporation of Boston (EDIC/Boston):³

- EDIC/Boston has at its disposal a number of public programs to help small businesses obtain financing at lower interest rates, for longer terms, and with smaller down payments than the private market requires;
- EDIC/Boston personnel have a working knowledge of these programs and can help businesspeople identify the most advantageous program for which they qualify;
- EDIC/Boston will help file the appropriate documents and make presentations to lenders;
- EDIC/Boston will help organize and coordinate loan closings; and
- If EDIC/Boston personnel believe that a program which is handled by another agency is more advantageous, they will make the appropriate referral.

³The address and telephone number are: 18 Tremont Street, Suite 300, Boston, Massachusetts 02108; and (617) 725-3342. Ask for the Director of Financial Services or the Manager of the Boston Local Development Corporation.

In the next section, we examine the major publicly assisted financing programs with which EDIC/Boston is involved.

B. PUBLICLY ASSISTED PROGRAMS

Very often, a firm may have in mind a project it considers worthwhile, but it is unable to obtain financing from any of the private sources just described. Other times, conventional financing may be available, but the terms (interest rate, down payment, length of term, etc.) may be so unfavorable as to make an attractive project infeasible. In such instances, the firm should visit EDIC/Boston. There are six major publicly assisted programs that it helps firms utilize:

- (1) Small Business Administration (SBA) 503 loan program;
- (2) SBA 502 loan guarantee program;
- (3) Boston Local Development Corporation (BLDC) Targeted Revolving Loan Program;
- (4) SBA 7(A) loan guarantee program;
- (5) Industrial revenue bonds; and
- (6) Industrial revenue bonds with an SBA guarantee.

We will describe each of them in detail in this section. EDIC/Boston will help firms meet their financing needs under all six of these programs, although firms technically do not need EDIC/Boston assistance on two of these programs--the SBA 7(A) or the industrial revenue bond with SBA guarantee, as discussed below.

EDIC/Boston participation is, in fact, required in the other four programs. The involvement of the Boston Local Development Corporation (BLDC), an SBA-approved, non-profit corporation established and staffed by EDIC/Boston, is necessary in SBA 502 or 503 financing as well as in the BLDC Targeted Revolving Loan Program. Similarly, the Boston Industrial Development Financing Authority (BIDFA) is staffed by EDIC/Boston and is the local authority issuing industrial revenue bonds in Boston. For pollution control, waste disposal, and resource recovery projects only, the Massachusetts Industrial Finance Agency (MIFA) is authorized to issue industrial revenue bonds which have an SBA guarantee.

It must be borne in mind in reading this section that all public programs have limited funds and consequently may not be available even to all those who qualify. In addition, programs are subject to alteration or elimination by law-makers and regulators at any time.

1. SBA 503 Loan Program

The Small Business Administration (SBA) is an agency of the federal government which gives assistance to small businesses in order to "preserve free competitive enterprise by strengthening the competitive position of small business concerns." The SBA has a number of programs which increase the availability and/or attractiveness of loans to small business. In this manual, we will analyze four such programs, the SBA 503 loan program, the SBA

502 loan guarantee program, the SBA 7(A) loan guarantee program, and the SBA-guaranteed industrial revenue bond program. All of these programs allow participation only by "small" businesses, that is, firms of a certain maximum size specified by such criteria as number of employees, total net worth, net profit after tax, and annual receipts.

To qualify for the SBA 503 loan program, for example, a firm must have a total net worth of \$6,000,000 or less and an average net profit after tax for the last two years of \$2,000,000 or less or, if it does not fulfill these two tests, it must meet the SBA 7(A) size standards which are generally based on maximum number of employees or maximum amount of sales (discussed below). In addition, the firm must show that conventional financing on the same terms as under the SBA loan is infeasible and/or unavailable. That is not to say that the SBA is looking to finance firms that are unprofitable and not credit-worthy. On the contrary, the SBA 503 loan program (and the other SBA programs discussed here) is designed to help profitable, growing firms that simply need a little help financing long term assets, allowing them to retain working capital for financing their future growth. But what is the program? And how does it help? These questions will now be answered.

An SBA 503 loan, when quickly described, sounds a bit complex and forbidding, but in reality it works very simply. It permits a bank to participate in a financing with much less risk than a conventional deal. In an SBA 503 deal, the bank generally puts in only 50 percent of the needed financing and gets a "top" position (just like the holder of a first mortgage). The SBA usually contributes 40 percent of the financing needed⁴ and takes a position second to the bank. The SBA contribution decreases the amount of money the bank has at risk and makes it more likely that the bank will be able to recover the money lent if the firm defaults on the loan. With the bank putting in 50 percent and SBA 40 percent, there is 10 percent left which comes from the Boston Local Development Corporation (BLDC) and the firm. The BLDC share generally ranges from 2-1/2% to 7-1/2%, depending on the firm's needs. The structure of a 503 package thus looks like this:

Private Lender (Bank)	50%	
SBA	40%	
BLDC	2-1/2 - 7-1/2%	} Total = 10%
Firm	2-1/2 - 7-1/2%	
	Total 100%	

Because of the costs and effort involved in putting a 503 package together, this program ordinarily does not make sense for a deal under \$150,000 or so.

The SBA portion takes the form of "debentures" (debt) technically issued by the BLDC.⁵ The SBA portion carries a term of 15, 20, or 25 years. The

⁴The SBA portion may not exceed \$500,000 nor will the SBA contribute more than one-half of the total cost of the project.

⁵These debentures are actually funds lent by the Federal Financing Bank with a 100 percent SBA guarantee. For simplicity, they will be referred to as the "SBA portion."

SBA requires that the assets financed have a useful life of at least 15 years and that the bank loan have a term commensurate with this useful life. The term offered by the bank is therefore usually at least 15 years, although a slightly shorter term might be allowed on assets such as equipment. It takes from three to five months from the initial meeting with EDIC/Boston for funds to be available to a firm in a 503 package.

The effective interest rate of a 503 package is quite a bit lower than a conventional loan. The overall average interest rate in a 503 package can easily be in the range of three percent less than prime, which is a significant savings over the prime to prime plus three percent that is charged on a conventional bank loan. The savings usually comes not so much from a reduced rate on the bank portion of the loan (although the bank may give a lower rate), but from the very low interest rate which the SBA and BLDC portions carry.⁶

From this discussion, it should be clear that an SBA 503 package is quite attractive compared to a conventional bank loan. It encourages bank participation by lowering its exposure, it increases the length of the term (for equipment, close to 15 years versus five or seven years on a conventional loan), it decreases the interest rate (from prime or higher to three percent less than prime), and it decreases the required down payment (for equipment, down to 2.5 to 7.5 percent instead of 20 percent). In addition, the 503 program does not require, as the SBA 7(A) program sometimes does, the owners to liquidate their assets and invest them in the project.

There are some constraints on this program, however. A 503 package is designed to finance long-term assets. It may only be used for these items if they have an expected useful life of at least 15 years:

- (1) Purchase of land and buildings;
- (2) Construction;
- (3) Modernization; and
- (4) Purchase of machinery and equipment.

⁶The interest rate on the SBA portion (usually 40 percent of the total financing) is fixed by the federal government at an amount equal to 1/8 to 1/4 percent over the amount paid by the federal government on its obligations with a similar term. This rate can be up to six or seven percent below prime. The BLDC portion (2.5 percent to 7.5 percent of the entire package) carries an even lower interest rate, 75 percent of the federal discount rate, which can yield an interest rate as much as 10 percent or more below prime. The bank sets the rate on its portion of the package, subject to the requirement that it be both legal and "reasonable."

Working capital, debt consolidation, and refinancing are not allowable uses of 503 funds. The long-term nature of this program poses a problem for many banks when equipment is being financed. Banks often have established policies against carrying equipment loans for the period required by this program (15 years or slightly less). This problem may be the most significant drawback to the 503 program.

An additional consideration is the other costs associated with a 503 package:

- (1) a \$250 non-refundable processing fee, payable in advance;
- (2) a closing fee of one percent of the SBA and BLDC portions, payable at closing;
- (3) a monthly servicing fee of .375% of the outstanding yearly principal balance of the SBA and BLDC portions;⁷ and
- (4) the legal fees incurred by the BLDC.

None of these fees is extremely large, but they all must be paid. The 503 program also allows a broad range of collateral:

- (1) mortgage on land and buildings acquired with the loan proceeds;
- (2) liens and chattels on machinery, equipment, and fixtures;
- (3) lease assignments;
- (4) personal guarantees; and
- (5) other collateral deemed necessary.

Finally, SBA policy does not allow an industrial revenue bond, an advantageous method of financing discussed below, to be used as the private sector portion (top part) of a 503 financing.

These constraints can detract from, but hardly outweigh, the advantages of low rate, long term, and low down-payment. The SBA 503 program is attractive and is one of the first programs to which EDIC/Boston will look to help a business which comes to it.

⁷Based on equal reduction of principal over the term of the loan.

2. SBA 502 Loan Guarantee Program

Another SBA program, with all the same qualification requirements as the SBA 503 program, is the SBA 502 loan guarantee program. As the name implies, the SBA does not directly put money into a package under this program, but merely guarantees a portion of the amount lent by a bank. In some ways, this is even better than a direct loan since the federal government is now assuring payment of the guaranteed portion. The SBA guarantee is so iron-clad, in fact, that there is a well-established market for such debt, in which the bank can sell the guaranteed portion to an investor. This market offers many advantages to the bank. These advantages need not be delineated here in detail, but for the firm needing financing, they can translate into lower effective interest rates, longer terms, and the availability of funds.

In a 502 loan guarantee package, the bank usually puts up 90 percent of the funds needed and takes top position. The SBA guarantees up to 90 percent of the amount the bank lends (in other words, up to 81 percent of the entire package), with a maximum guarantee of \$500,000. The BLDC and the firm put in the other 10 percent, with the BLDC generally lending 2-1/2 to 7-1/2 percent, again depending on need. The term here is flexible, up to 25 years, although probably a term of only seven to ten years is available for equipment. An SBA 502 loan guarantee deal takes about the same three to five months to set up as a 503 loan; when completed it looks like this:

Private lender (bank) (up to 90% SBA guaranteed)	90%	} Total = 10%
BLDC	2-1/2 - 7-1/2%	
Firm	2-1/2 - 7-1/2%	
	Total 100%	

For a loan of a seven-year term or more, the private lender can charge a maximum interest rate of 2-3/4 percent over prime. The BLDC portion again carries a rate of 75 percent of the federal discount rate, which can be 10 points below prime or more. Since the BLDC portion is only 2-1/2 to 7-1/2 percent of the total package, however, the overall interest rate is determined mostly by the bank portion. One might expect a bank to really be able to give a break to the firm on the interest rate with the SBA guaranteeing up to 90 percent of the bank's exposure. Unfortunately, this is not so. In the 502 program, the SBA prohibits the bank from requiring a compensating balance, decreasing the bank's effective interest rate. In addition, the bank no longer has 40 percent of the package contributed by SBA to reduce its exposure as in a 503 package and the term, while it can be shorter than the 15 years required under 503, is still longer than permitted by the normal lending policies of many banks. So a bank rarely charges significantly less than it might under a conventional loan or a 503 package, making the overall interest rate higher than under SBA 503. However, without a compensating balance requirement, this loan will still carry a lower effective rate to the borrower than a conventional bank loan.

The 502 program is particularly important for equipment financing. As already mentioned, the firm may get a seven- to ten-year term on an equipment

financing, longer than from the bank without the guarantee, but not so long as to make most banks unwilling to participate (as can occur under 503). As in the 503 program, the usual down payment of 2-1/2 to 7-1/2 percent is also quite low and the owners will not be required to liquidate assets and invest them in the project. The 502 loan guarantee program also has many of the same costs and constraints as the 503 program:

- (1) the firm must pay all legal fees incurred by the BLDC and there is a \$250 non-refundable processing fee, a closing fee of .5 percent of the amount of the SBA guarantee plus the BLDC portion, and a monthly servicing fee of .1875 percent of the yearly principal balance of the SBA guarantee and BLDC portion;⁸
- (2) the costs and effort involved in the program make deals of less than \$150,000 or so impractical;
- (3) the items which can be financed are the same as under 502 (see Exhibit 2-1);
- (4) the collateral which can be required is the same broad range as under the 503 program; and
- (5) the 502 program can not guarantee an industrial revenue bond (an advantageous method of financing discussed below).

In summary, it should be noted that the 502 loan guarantee program, while not giving the firm as low a rate of interest as the 503 program, does still permit a low down payment and allows a longer term on equipment financing than conventional financing (but not so long a term as to make equipment financing unattractive to many banks, as is possible under 503). Most importantly, the 502 program encourages bank participation which otherwise might not occur.

3. BLDC Targeted Revolving Loan Program

A third program designed to help Boston firms finance fixed assets is offered by the Boston Local Development Corporation (BLDC)--the BLDC Targeted Revolving Loan Program. This differs from the previously discussed financing programs in several important respects. First, the SBA is not involved and so there are no strict size requirements. Second, the program was designed by EDIC/Boston primarily to meet the needs of those businesses located in the City's priority areas that have been targeted for intensive industrial development assistance:

⁸Based on equal reduction of principal over the term of the loan. Note that while the percentage amounts of these last two charges are half those under the 503 program, see Exhibit 2-1, the amount paid here is really about the same as under 503 since the amount of which the percentage is being taken is about twice as much.

- (1) the industrial area in the City's Roxbury/South End section which surrounds the CrossTown Industrial Park, and is known as the Newmarket Area;
- (2) EDIC/Boston Redevelopment Areas including the Boston Marine Industrial Park, CrossTown Industrial Park, and Alsen-Mapes Industrial Park;
- (3) Allston-Brighton Industrial Areas; and
- (4) Hyde Park Industrial Areas.

Funds are allowed to be used elsewhere, but businesses in these areas have priority in receiving assistance under this program. Since BLDC funds are limited, one of the major criteria for participation is the creation of jobs, especially for Boston residents.

As with other assistance offered by BLDC, the BLDC Targeted Revolving Loan Program is available only to the extent needed by the firm and only where conventional financing on the same terms is unavailable or would make the project infeasible. The goal is not to help marginal firms that are not credit-worthy, but to help growing firms that need special attention to foster that growth. A BLDC Targeted Revolving Loan works quite similarly to an SBA 503 deal. The private lender provides the top portion, while the BLDC takes a subordinated position. The BLDC injection can not exceed \$150,000 or 30 percent of the total financing package and the BLDC will only contribute what is necessary to put the deal together. The BLDC likes to see the firm put up at least 10 percent, but has allowed less in certain cases. A typical package can look like this:

Lender (bank)	70%
BLDC	20%
Firm	10%
Total	100%

Because of the costs and effort involved in putting a loan together, a BLDC Targeted Revolving Loan package has a practical minimum total size of \$150,000 or so.

Why should a firm use this program at all? One major reason is that the bank portion may be a low-interest industrial revenue bond, which is discussed in greater detail below. Neither the SBA 503 nor the SBA 502 program allows the use of this beneficial device. In addition, the BLDC portion is larger here than under other programs and the BLDC interest rate of 75 percent of the federal discount rate is extremely low. Thus, the overall interest rate under this program can be very favorable.

Several other advantages deserve mention. The term of a BLDC Targeted Revolving Loan is long, generally between 15 and 25 years, which is another positive point. The 10 percent down payment may not be as small as that

required under 503 or 502 but it is still low compared to many conventional packages. It should also be noted that since the BLDC is the only agency involved, there is little red tape; a loan package can be developed in two to three months or less. The usual types of collateral are required. Finally, a BLDC Targeted Revolving Loan may make possible an otherwise impossible deal (because the risk was too great for the bank without the BLDC share under it).

The program does have some limitations and costs. First, funds are limited and priority is given to projects in the areas of Boston listed earlier. Second, the program's purpose is to finance the purchase of long-term assets (such as the purchase of land and buildings, construction, modernization, machinery and equipment and, in EDIC-owned areas only, leasehold improvements). This may present a problem when equipment is involved. The term may be longer than the bank's policy permits for an equipment loan. Also, working capital may not be financed here. Finally, there are these fees:

- (1) a non-refundable processing fee of \$250.00;
- (2) a closing fee of one percent of the BLDC portion of the loan;
- (3) a monthly servicing fee of .375 percent of the outstanding yearly principal balance of the BLDC loan, based on equal reduction of principal over the term of the loan; and
- (4) legal fees incurred by BLDC in closing the loan, which the firm will also have to pay.

These limitations and costs are minimal in comparison with the benefits of this program.

4. SBA 7(A) Loan Guarantee Program

We have now completed our review of the programs involving the BLDC. The SBA 7(A) loan guarantee program, in fact, does not even require EDIC/Boston participation. EDIC/Boston will, however, help firms in preparing an SBA 7(A) package.

The SBA 7(A) loan guarantee program is another Small Business Administration program which helps firms which are under a certain size and which need assistance because they are otherwise unable to get conventional financing on the same terms. The 7(A) size requirements are quite complex and vary by industry. For manufacturing firms, the criterion is a maximum number of employees (such as 250; some industries have higher limits) and for retailing and service businesses, the criterion is usually maximum annual receipts (such as \$2,000,000, with some industries having higher limits).

Like the 502 loan guarantee program, the 7(A) program guarantees a portion of the amount a lender (a bank) puts into a project. Under 7(A),

however, there is no BLDC participation, so the lender and the firm negotiate the amount of down payment and collateral required. The SBA can guarantee up to 90 percent of the amount lent, but it has recently been guaranteeing less, in the range of 70 percent to 85 percent, in order to stretch its limited resources to help more small businesses.

As in the 502 program, the amount of SBA's guarantee is limited to \$500,000, but since there are fewer parties and less costs involved, there is no practical minimum loan amount as in the 502 and 503 programs. In addition, a 7(A) package can be put together faster than a 502 guarantee, in about two to three months. The maximum allowable interest rates are the same, however:

- (1) Term of less than 7 years -- Prime + 2-1/4% and
- (2) Term of 7 years or more -- Prime + 2-3/4%.

Again, as with the 502 program, no compensating balance requirement is allowed, so banks tend to charge the market rate of interest, despite their reduced risk.

One major difference between 7(A) and the other programs we have discussed thus far is that a 7(A) guaranteed loan can be used for working capital. The allowable uses of a 7(A) package and the terms for each are as follows:

<u>Use</u>	<u>Term</u>
(1) Working capital or debt consolidation ⁹	Up to 7 years
(2) Machinery and equipment purchase	Up to 10 years
(3) Renovation, remodeling, building purchase, or leasehold improvements	Up to 15 years
(4) New construction and land acquisition	Up to 20 years

The only fees that accompany a 7(A) package are any legal fees incurred (by the firm or the bank) and the SBA guarantee fee of one percent of the guaranteed amount, which the bank must pay and will usually require the firm to absorb.

In short, an SBA 7(A) loan guarantee is a flexible device that allows a firm to obtain financing for working capital and other needs. It is more expensive than the other SBA programs that have been discussed, however. The

⁹Debt consolidation is only permitted when it is not a "bail-out" of a lender and if the lender's exposure is not reduced.

overall interest rate is not as low as in a 503 or 502 package (since there is no direct SBA or BLDC participation) and the term may be shorter than with 502 or 503 financing. One additional disadvantage may be even more important to the owners of the firm. If their net worth is large, they may be required to liquidate some of their personal assets and invest them in the project before SBA will participate. If working capital is needed, however, a 7(A) package may be the only realistic alternative to conventional financing.

5. Industrial Revenue Bonds¹⁰

Industrial revenue bonds are a completely different method of financing than the programs previously mentioned, although they can be used in conjunction with the BLDC Targeted Revolving Loan Program. Neither the SBA, EDIC/Boston, the BLDC, nor BIDFA (Boston Industrial Development Financing Authority) contributes funds under an industrial revenue bond; the financing is provided by a private lender (usually a bank). The SBA will guarantee bonds for pollution control facilities, a program which is described in the next section of this chapter. Other than this guarantee, no government or government agency is obligated under an industrial revenue bond. BIDFA must approve a bond and it is technically issued by BIDFA, but only the borrowing firm's credit is pledged to repay it. The obligations belong solely to the borrowing firm.

The main advantage of an industrial revenue bond stems from the federal tax laws. Interest received by a lender under an industrial revenue bond is exempt from federal income taxes. The lender can therefore charge a much lower rate of interest, making an industrial revenue bond very attractive to the borrower. Unfortunately, not every project qualifies for this attractive program and not every deal can benefit from it.

To begin with, Massachusetts law and the federal Internal Revenue Code establish qualifications for obtaining industrial revenue bond financing and impose conditions upon the use of the funds obtained through such a bond. Only certain projects fit within this program, namely "industrial development facilities" and pollution control facilities. The former category is quite broad, including facilities used in connection with any industrial or research and development enterprise. Examples are buildings, docks, wharves, ships, land, machinery, equipment, franchises, furnishings, landscaping, utilities, roadways, offices, warehouses, terminals, and back-up power generating facilities. Even commercial properties can be included, as long as the project is located in an area designated as a Commercial Area Revitalization District (CARD).¹¹ Pollution control facilities include "facilities for the

¹⁰BIDFA has available a publication entitled, "The Boston Industrial Revenue Bond Program," which can be obtained from the EDIC/Boston office.

¹¹The CARD program makes commercial property within designated areas eligible for certain economic incentives previously available only to industrial enterprises. These incentives include industrial revenue bond financing, mortgage insurance, tax credits, and reimbursement of a portion of local government parking facility construction costs. For more information on the CARD program, contact BRA or EDIC/Boston.

prevention, avoidance, reduction, control, abatement, elimination, or monitoring" of air or water pollution.¹² Certain solid waste disposal and resource recovery facilities may also qualify.

There are also some limits on what kind of use can be made of the proceeds of industrial revenue bonds. Proper uses include the purchase of land, the purchase or construction of buildings, additions or renovation to existing buildings, and the purchase of machinery and equipment. For such projects, basically all associated costs such as interest, insurance, taxes, professional fees, and closing costs may be financed. Bond proceeds may not be used for adding to working capital, financing assets which can not be depreciated, such as inventory and accounts receivable, and refinancing prior permanent financing that is not tax-exempt.

In addition, there are some limits on the size of certain projects eligible for tax-exempt financing. For air or water pollution control facilities, solid or liquid waste disposal facilities, and certain other projects, there is no maximum limit on the size of the bond issue or the amount of capital expenditures (the amount spent for fixed assets) by the firm. For other bond issues of \$1,000,000 or less, there are also no capital expenditure limits.

For other bond issues over \$1,000,000, however, the firm may not spend more than \$10,000,000 on fixed assets in Boston during the 6 year period beginning three years before the bond is issued and ending 3 years after the bond is issued. This \$10,000,000 figure includes the use of the bond itself so that projects over this amount are usually not eligible.¹³ As far as minimum bond size is concerned, because the costs of closing an industrial revenue bond are much higher than for a conventional loan, the practical lower limit for industrial revenue bond financing is in the range of \$200,000 or so. For smaller amounts, the added expenses are usually greater than the value of the interest saved.

Although the firm need not concern itself with the intricacies of the federal tax law, competent bond counsel must be retained to assure compliance with the law so that the tax-exempt status of the bond will be maintained. For example, project costs may not be incurred until the appropriate local authorities have approved the bond. If such costs are incurred too early, all or part of the project may be disqualified from tax-exempt financing. Bond counsel will advise a firm when project commitments may be made.

BIDFA also requires that a project must serve a public purpose in order to be eligible for approval as an industrial revenue bond. Public purpose includes job creation, job retention, local tax revenue generation, area revitalization or reinvestment, and pollution abatement.

¹² Massachusetts General Laws, Chapter 40D, Section 1(o).

¹³ When an Urban Development Action Grant from the U.S. Department of Housing and Urban Development is involved, the capital expenditures limit will be raised to \$20,000,000, but only \$10,000,000 of the bond will be tax-exempt.

In addition to these requirements, there are several costs and constraints involved with industrial revenue bonds. For example, the costs (often called "soft costs") associated with closing the deal and ensuring that it complies with applicable laws can be substantial. The firm must pay not only its own attorney's fees, but also those of BIDFA. These attorney's fees must be borne by the firm even if the financing falls through. BIDFA imposes other fees as follows:

- (1) A \$250 non-refundable processing/screening fee;
- (2) A \$200 closing fee; and
- (3) Issuance fees of 1/4 percent of the bond amount up to \$1,000,000 plus 1/10 percent of the bond amount over \$1,000,000, with a minimum of \$500.

The Massachusetts Industrial Finance Agency (MIFA) must give final approval to all industrial revenue bonds issued by BIDFA and it charges an issuance fee of 1/2 percent of the bond amount, with a minimum of \$500.¹⁴

A potential constraint of this program is that not all banks are willing and able to participate in industrial revenue bonds for all their clients. Most banks have established a maximum amount of tax-free loans that they desire to carry on their books. The reason for this is that the tax-free interest rate is less than their usual rate of interest, but it only benefits them if they have taxable income from other sources. If too much of their portfolio is in tax-exempt bonds, they lose interest without the concurrent advantage of saving taxes. Therefore, some banks reserve the use of industrial revenue bonds for their best customers and some banks are not able to offer them to any firms at all.

Another problem with industrial revenue bonds is a potential loss of some tax advantages. A firm that purchases certain pollution control equipment and has that equipment properly certified by the appropriate state and federal agencies is entitled to amortize (depreciate) such equipment quite rapidly. This is beneficial because it reduces the taxes that the firm would have to pay during the few years immediately following the purchase. Unfortunately, if a firm finances the purchase with an industrial revenue bond and elects to use this rapid amortization, it can only take 1/2 of another tax benefit, the investment tax credit (which is another way of reducing taxes). If the bond is not used, the full investment tax credit is allowed. This issue is explained in more detail in Appendix A, but what is important to remember here is that a firm that uses an industrial revenue bond to purchase pollution

¹⁴MIFA has two other functions that are relevant here. First, for a fee, it will insure payment of up to 40 percent of the bond if the debtor defaults and the collateral is not sufficient to pay the balance due. This insurance can decrease the lender's risk. Second, MIFA issues industrial revenue bonds with an SBA guarantee, as discussed in the next section.

control equipment may lose some tax advantages. Legal counsel will be able to explain the seriousness of this problem if it arises.

One last problem with industrial revenue bonds is that deals can take four to six months to put together although, after certain initial approvals, the lender may provide interim financing to make funds available to the firm significantly before this time. Such interim financing is not tax exempt, but its costs may be financed by the bond when it is issued.

Despite the conditions, restrictions, and costs of industrial revenue bonds, tax-exempt financing has such a low interest rate (in the range of 60 percent to 80 percent of prime) that these bonds are extremely attractive. The term can extend up to the useful life of the items financed (to a legal maximum of 50 years) and is potentially longer than that available conventionally. In practice, equipment is usually financed for five to ten years, although long-term fixed assets are financed for as long as 30 years. A private lender such as a bank provides the funds, so that down payment, collateral, and other features of the bond are negotiable between the lender and the firm, making an industrial revenue bond a very flexible and desirable financing tool.

6. Industrial Revenue Bonds with an SBA Guarantee

The final financing program we will cover in this handbook is also the potentially most attractive--SBA-guaranteed industrial revenue bonds. They are not only tax-exempt like ordinary industrial revenue bonds, but since they are 100 percent guaranteed by the Small Business Administration, they carry an even lower interest rate, similar to that of tax-free securities of the federal government. They are indeed desirable, but they are available only for certain projects of certain firms.

Only projects for facilities or equipment to reduce or abate air, water, or noise pollution, waste disposal facilities, or resource recovery operations are eligible. As with ordinary industrial revenue bonds, the issuance costs (discussed in greater detail below) make this program practical only for projects of over \$200,000 or so, although smaller projects of several firms may be joined in one bond to reduce the impact of these costs. Such a combination will almost surely increase the time required to close the deal which may well be long, six to eight months or longer, even in a straightforward package. The maximum project size permitted in this program is \$5,000,000.

Because the SBA is involved, the firm must meet the SBA size standards for the program. To do so, a firm must either have less than a certain maximum number of employees (this varies by industry but is typically 250, 500, 750, or 1,000) or, regardless of the number of employees, fulfill both certain net worth and income after tax requirements. To meet this alternative set of criteria, the firm must have a net worth of \$6,000,000 or less and average annual after-tax income for the previous two years of \$2,000,000 or less.

To satisfy other SBA requirements, the firm must also be able to show that it is at an operational or financing disadvantage compared to other business concerns with respect to planning, designing, installing, or financing pollution control facilities. This is not difficult to show; it is not necessary to have refusal letters from banks or to claim that the firm will go out of business if the bond is not issued. Finally, the SBA requires that the firm be reasonably stable--it must have been in business for a minimum of five years, been profitable for at least three of the last five years, and be able to service the debt.

Industrial revenue bonds with an SBA guarantee are issued by the Massachusetts Industrial Finance Agency (MIFA). The guarantee makes the bonds so desirable to lenders that the firm need not line up a commercial bank to buy them. They can be sold in reasonably small denominations (such as \$5,000) to the public in the open market by an underwriter (investment banker). It is necessary, however, that a local bank certify that the firm satisfies SBA's credit criteria. This bank assumes no legal or financial liability for its certification ("sponsorship").

The term of an SBA-guaranteed industrial revenue bond can legally extend to 30 years. In practice, investors insist upon shorter terms, usually in the 15 to 20 year range. This is still significantly better than conventional loans which have a five or seven year maximum for equipment. Usually, the only collateral required is the items financed, although other security and personal guarantees may be sought by the SBA.

Industrial revenue bonds guaranteed by the SBA have the lowest possible interest rates and long terms. Why look at other financing for qualifying projects? There are several reasons. First, the issuance costs are extremely high, higher even than ordinary industrial revenue bonds because a public offering, with underwriters, trustees, escrow, and an SBA guarantee, is involved. These are the costs a firm can expect:

- (1) SBA guarantee fee of 3.5 percent of the aggregate amount of principal and interest guaranteed;
- (2) SBA processing and administrative fee--\$550 plus \$30 for each year of the bond term, \$250 of which is non-refundable and payable in advance;
- (3) MIFA issuance fee--1/2 percent of the bond amount, with a minimum of \$500;
- (4) Other MIFA fees--\$500 application fee (non-refundable once MIFA initially approves the project) which will be credited towards the issuance fee;
- (5) Trustee fees--usually an acceptance fee of \$1,000 and a maintenance fee of \$500 per year;

- (6) Paying agent fees--usually \$0.10 per coupon, \$10 minimum semi-annually, and \$2.50 per bond at maturity;
- (7) Underwriter's discount and management fee--typically up to 2-1/2 percent of the bond amount;
- (8) Legal fees, even if no bond is issued; and
- (9) Printing fees.

These up-front costs can easily exceed 15 percent of the total bond. Fortunately, they can almost all be financed with bond proceeds, as can the interest paid on interim financing obtained during processing of the loan application.

Second, it has typically taken a reasonably long time, up to six or eight months from initial application or even longer, to obtain funds from an SBA-guaranteed industrial revenue bond (as with ordinary industrial revenue bonds, however, interim financing may be available). There are several reasons for this delay, including the number of parties involved and the care which must be taken to preserve the tax-exempt status of the bond. The major reason, however, has been that the program has been heavily oversubscribed. While qualifying applications have not been turned down, a waiting list has resulted. This list may be reduced by the increase in the amount of guarantees for future fiscal years which Congress has recently approved, but at the time this manual was written, there had been no appropriations to support these guarantees.

Third, as with ordinary industrial revenue bonds, if rapid amortization is used to save current taxes on pollution control equipment financed with an SBA-guaranteed industrial revenue bond, only half of the investment tax credit can be claimed. See Appendix A for a further discussion of this issue.

For a larger project, these disadvantages are more than outweighed by the very favorable interest rate and term of an SBA-guaranteed industrial revenue bond.

C. A COMPARISON OF THE PUBLIC PROGRAMS

Exhibit 2-1 (found at the end of this section) summarizes the key aspects of each of the financing methods described in this chapter. That exhibit allows a direct comparison of the alternative methods. This section will contrast the six public programs on four important aspects: interest rate, term, down payment, and application processing time.

1. Interest Rate

Most borrowers consider the effective interest rate of a long-term financing package of crucial importance because the interest rate is a major determinant of the size of the regular payments that will be required. As discussed in this chapter, most of the publicly assisted programs make

capital available to firms at interest rates lower than could be obtained in conventional financing. Although interest rates differ from one deal to the next, depending upon the prevailing interest rates at the time, the relationship between the firm and the lender, the credit-worthiness of the firm, and the items being financed, generalizations about each public program can be made.

For qualifying projects, the effective interest rate on an SBA-guaranteed industrial revenue bond is usually the lowest available, even when the high issuance, closing, and guarantee costs are taken into consideration. Generally, the next least expensive rate is found in ordinary industrial revenue bonds, with two possible exceptions. A firm that could not get an ordinary industrial revenue bond for the entire project might qualify for a BLDC Targeted Revolving Loan package with an ordinary industrial revenue bond as the top portion. This would be cheaper overall than an ordinary industrial development bond because the BLDC infusion carries a very low interest rate. The other exception is that if the ordinary industrial development bond is issued at or close to 80 percent of the prime rate (as is possible today), an SBA 503 package may save money overall because of the decreased issuance costs.

As the reader might have guessed, an SBA 503 loan package generally has the next most attractive overall interest rate because of the cheap SBA debenture. The SBA 502 loan guarantee program is generally more expensive and SBA 7(A) is more expensive still. The Targeted Revolving Loan Program can pretty much fall in between any of the above categories; depending upon what kind of financing is being used for the top portion and how much the BLDC is contributing.

2. Term

The term of a loan is also a major determinant of the size of the payments the borrower will be required to make. Borrowers generally prefer longer terms because they tend to make such payments smaller. For certain types of assets, particularly equipment, some of the public programs offer significantly longer terms than are available conventionally.

For long-term fixed assets, all of these programs potentially offer terms of at least 20 years. In fact, only the SBA 7(A) program prevents the term from extending beyond 20 years, all the rest can go at least 25. Practically speaking, however, investors are looking for shorter terms today to reduce their risk. For example, although SBA-guaranteed industrial revenue bonds may legally run for 30 years, 15 to 20 years is the typical range.

On equipment financing, there is apt to be a broader range of terms. SBA 7(A) and 502 packages, together with ordinary industrial revenue bonds, all tend to be under 10 years, while the 503 program requires at least a 15-year term on the SBA portion and would not allow a much shorter term even on the bank portion. A similar term to the 503 program can be expected on the BLDC Targeted Revolving Loan Program and the SBA-guaranteed industrial revenue bond.

3. Down Payment

The amount of the down payment can be a critical variable in determining whether or not a firm is able to undertake a particular project. Since the firm must directly contribute the down payment, if it is too large, the project may be impossible. Many of the public programs discussed here can reduce the required down payment below that typically found in conventional loans.

The down payment required on all of these programs depends significantly upon the peculiarities of the deal. Strictly speaking, no down payment is legally required in an SBA-guaranteed industrial revenue bond. The down payments in ordinary industrial revenue bonds and the SBA 7(A) program are negotiated between the lender and the firm, so they could vary upwards from 0 percent. Generally, a 2-1/2 to 7-1/2 percent down payment is required in 502 and 503 packages depending on need, while BLDC prefers at least a 10 percent down payment in a BLDC Targeted Revolving Loan package. These last three programs generally have smaller down payment requirements than a conventional equipment loan; the other three involve negotiated down payments that may or may not be as favorable as under conventional financing.

4. Application Processing Time

In many cases, the length of time required for a loan application to be processed and for funds to be available to a firm can be very important. Success or failure in business often depends on making decisions and acting quickly. Decisions sometimes cannot be made until the firm knows whether or not capital is available. In other instances, an investment will only be valuable if funds can be committed to it quickly.

For the public programs, however, the time from initial application to closing can vary greatly, even among applications for the same program. These variations are caused by such factors as the type of items to be financed, the relationship between the firm and the lender, how much planning has already been done on the project, the amount of funds available in the program, and the particular legal problems that arise. In this chapter, generalizations about the likely range of processing times for each public program have been made, but it should be kept in mind that the factors just enumerated may bring the actual processing time of a particular application outside of the range given here.

In general, the programs with the fastest processing times are the BLDC Targeted Revolving Loan Program and the SBA 7(A) loan guarantee program. Because of the limited number of parties involved in these programs, it typically takes from 2 to 3 months from the time of initial application until funds are made available to the firm under these two programs. An SBA 503 loan and an SBA 502 loan guarantee both take a bit longer to obtain, about 3 to 5 months. Ordinary industrial revenue bonds take longer still, from 4 to 6 months, although interim financing may be available. The longest processing time for all six programs is for an SBA-guaranteed industrial revenue bond, which takes 6 to 8 months or even longer to complete, although interim financing may be available to provide funds in less time.

COMPARISON OF FINANCING METHODS

Type of Financing	Conditions	Time Required to Obtain	Legal or Practical Minimum or Maximum Size	Sources of Capital	Interest Rate	Other Costs	Items Which Can Be Financed	Advantages	Constraints or Disadvantages	Collateral Required
Working Capital	None	None	None	Internally generated funds	None (but see text on "costs")	None	All	(1) Not lessen debt capacity (2) Quick, no red tape involved	(1) Few firms have sufficient funds (2) Growing businesses need to retain working capital to finance growth	None
Bank Loan	(1) Creditworthiness (2) Often require that firm maintain good financial condition (measured by "ratios") (3) Usually require compensating balance	3-4 Weeks	Negotiable	Maximum of 5 or 7 years for equipment	Market--Nominally between prime and prime +3%, but effectively can be much higher due to compensating balance requirements	Generally none--may be some special legal fees	Negotiable	(1) Quick and easy to arrange (2) Interest (but not principal) payments are tax deductible	(1) Expensive (2) Term limited (3) Unavailable to many firms (4) Large down payment (5) May be prohibited by prior agreements	Depends on creditworthiness of firm and nature of items financed
Sale of Equity Capital	Negotiable	Variable	None	N/A	N/A	Legal fees (in public offering, underwriting and other fees)	All	(1) Quick (2) Flexible (3) Dividends generally only need be paid when declared (4) Increases debt capacity	(1) Sometimes difficult to find buyer (2) Transfers ownership of part of business (3) Dividends are not tax deductible	None

EXHIBIT 2-1 (continued)

COMPARISON OF FINANCING METHODS

Type of Financing	Conditions	Time Required to Obtain	Legal or Practical Minimum or Maximum Size	Term	Sources of Capital	Interest Rate	Other Costs	Items Which Can Be Financed	Advantages	Constraints or Disadvantages	Collateral Required
SBA 503 loan program	(1) (A) Total Net Worth \$6M or less and Net Profit After Tax averaged \$2M or less for last 2 years or (B) Meets 7(A) standards (see below) (2) Conventional financing infeasible	3-5 Months	Practical minimum of \$150,000 or so. SBA share may not exceed \$500,000	Private portion-- usually at least 15 years; SBA portion-- 15, 20, or 25 years	(1) Private lender-- 50% (top position) (2) SBA-- 40% (second position) (3) BLDC & firm-- 10%, of which BLDC provides 2-1/2 to 7-1/2%	(1) Private lender-- Rate must be legal and "reasonable" (2) SBA debentures-- Fixed, usual range 1/8 to 1/4% above Treasury Bills (3) BLDC-- 75% of Discount Rate	(1) In advance-- \$250 non-refundable (2) At closing-- 1% of SBA and of BLDC portions* (4) Legal fees	(1) Purchase of land and buildings (2) Construction (3) Modernization (4) Purchase of machinery and equipment	(1) Rate is very low (2) Long term (3) Low down payment (4) Owner not need to liquidate assets and invest them in project	(1) Term may be too long for equipment (2) Can not use industrial revenue bond in combination with 503 financing	(1) Mortgages on acquired land and buildings (2) Liens and chattel mortgages on machinery, equipment, and fixtures (3) Lease assignments (4) Personal guarantees (5) Other deemed necessary

Monthly fee is based on outstanding yearly principal balance, based on equal reduction of principal over the term of the loan.

COMPARISON OF FINANCING METHODS

Type of financing	Time Required to Obtain	Legal or Practical Minimum or Maximum Size	Term	Sources of Capital	Interest Rate	Other Costs	Items Which Can Be Financed	Advantages	Constraints or Disadvantages	Collateral Required
BA 502 loan guarantee program	3-5 Months	Practical minimum of \$150,000 or so. SBA will guarantee maximum of \$500,000	Up to 25 years; probably only 7-10 years for equipment	(1) Private lender--90% (first position) (2) SBA guarantees up to 90% of private lender portion (3) BLDC and firm--10%, of which BLDC provides 2-1/2 to 7-1/2%	(1) Private lender--Maximum rate for term 7 years or more is prime + 2-3/4% (2) BLDC--75% of Discount Rate	(1) In advance--\$250 non-refundable (2) At closing--.5% of SBA guarantee plus BLDC portion (3) Monthly--.1875% of yearly principal of SBA guarantee and BLDC portion* (4) Legal fees	Same as 503 program	(1) Long term (2) Low down payment (3) Lender can easily sell guaranteed portion in secondary market (4) Owner does not need to liquidate assets and invest them into project	(1) Can not use industrial revenue bond in combination with 502 financing (2) Interest rate not as low as with 503 financing	Same as 503 program
BLDC Targeted revolving loan program	2-3 Months	Practical minimum of \$150,000 or so. BLDC portion is \$150,000 or 30% of project (only provided to extent needed)	Generally 15 to 25 years	(1) Private lender--top position (2) BLDC--subordinated (3) Firm--preferably 10% or more	(1) Private lender--Market (2) BLDC--75% of Discount Rate	(1) In advance--\$250 non-refundable (2) At closing--1% of BLDC portion (3) Monthly--.375% of yearly principal of BLDC portion* (4) Legal fees	(1) Purchase of land and buildings (2) Construction (3) Modernization (4) Machinery and equipment (5) In appropriate cases, leasehold improvements	(1) Can be used with industrial revenue bond to get very low rate (2) Long term (3) Small down payment (4) Relatively quick, little red tape	(1) Limited funds (2) Priority given to certain areas of Boston (3) Term may be too long for equipment	Adequate security required, varies by deal

ICF INCORPORATED

Monthly fee is based on outstanding yearly principal balance, based on equal reduction of principal over the term of the loan.

EXHIBIT 2-1 (continued)

COMPARISON OF FINANCING METHODS

Type of Financing	Legal or Practical Minimum or Maximum Size	Time Required to Obtain	Conditions	Sources of Capital	Interest Rate	Other Costs	Items Which Can Be Financed	Advantages	Constraints or Disadvantages	Collateral Required
SBA 7(A) loan guarantee program	SBA will guarantee maximum of \$500,000	2-3 Months	(1) Firm size must be less than maximum set by SBA, criteria vary by industry--criteria include annual receipts, net profit after tax, net worth, employment (2) Need to show conventional financing available	SBA guarantees up to 90% of private lender's portion. Amount of down payment negotiable with lender	Maximum rate: (1) Term of less than 7 years--Prime + 2-1/4% (2) Term of 7 years or more--Prime + 2-3/4%	(1) Legal fees (2) Guarantee fee --1% of amount guaranteed by SBA	(1) Working Capital (2) Certain debt consolidation (3) Acquisition of machinery and equipment (4) Acquisition of land and buildings (5) Renovation or construction of a building (6) Leasehold improvements	(1) Flexible (2) Increases financing available (3) Lender can easily sell guaranteed portion in secondary market (4) Relatively quick	(1) SBA may require owner to liquidate certain assets and invest them in business (2) Interest rate not as low as with 503 financing (3) Term not as long as 503 or 502 financing	Adequate security required, such as: (1) General security agreement and UCC filing on all assets (2) Chattel mortgages (3) Assignment of life insurance (4) Guarantees of affiliated businesses (5) Personal guarantees

EXHIBIT 2-1 (continued)

COMPARISON OF FINANCING METHODS

Type of financing	Conditions	Time Required to Obtain	Legal or Practical Minimum or Maximum Size	Term	Sources of Capital	Interest Rate	Other Costs	Items Which Can Be Financed	Advantages	Constraints or Disadvantages	Collateral Required
Industrial revenue bonds	(1) Creditworthiness (2) Compe- tent bond counsel retained (3) No project costs may be incurred before "inducement point" reached (4) Public purpose served by project	4-6 Months	Practical minimum of \$200,000+. If not for pollution control, may be limited to \$1,000,000 or \$10,000,000 maximum	Legal maximum of up to 50 years; practically, rarely over 30. Equip- ment more likely 5-10 years	Private lender-- Down payment may be required (technically issued by BIDFA)	Tax-free private market (approximate range: 60-80% of prime)	(1) In advance-- \$250 non-refundable (2) At closing-- (A) \$200 fee (B) Issuance fees-- 1/2% of total bond amount, plus 1/4% of bond amount up to \$1,000,000 insurance, 1/10% of bond over \$1,000,000; Minimum = \$1,000 closing costs (3) BIDFA legal fees, and fees), even if no bond issued (4) Firm's bond counsel	(1) Acquisition of buildings and land (2) New construction (3) Additions or renovations (4) Acqui- sition of machinery or equip- ment (5) Soft costs (interest, insurance, taxes, professional fees, closing costs)	(1) Low rate (2) Long term (3) Can finance "soft costs" (4) Very flexible	(1) High "soft costs" (2) Reasonably com- plex, time-consuming process (3) Must comply strictly with IRS code (4) Cer- tain possible tax dis- advant- ages (See Appendix A) (5) Many banks offer only to best customers	Adequate security required, varies by lender

COMPARISON OF FINANCING METHODS

Type of Financing	Conditions	Time Required to Obtain	Legal or Practical Minimum or Maximum Size	Sources of Capital	Interest Rate	Other Costs	Items Which Can Be Financed	Advantages	Constraints or Disadvantages	Collateral Required
Industrial Revenue Bonds with SBA Guarantee	(1) Firm size must be less than maximum set by SBA, criteria vary with type of firm (2) Must have been in business 5 years and profitable for 3 of the last 5 years (3) Must be able to service debt (4) Must be at operational or financing disadvantage (5) Competent bond counsel retained (6) Bank "sponsorship"	6-8 Months or longer	Practical minimum of \$200,000+. Maximum of \$5 million per company	Public offering (technically issued by MIFA)	Market rate for tax-exempt federal government securities	(1) SBA guarantee fee--3.5% of principal and interest (2) SBA processing and administrative fee (3) MIFA issuance fee--1/2% of bond amount; Minimum = \$500 (4) MIFA application fee (5) Trustee fees (6) Paying agent fees (7) Underwriter's discount and management fee--typically up to 2-1/2% of bond (8) Legal fees (9) Printing costs	(1) Facilities or equipment to reduce or abate air, water, or noise pollution, waste disposal facilities, resource recovery operations (2) Soft costs (interest, insurance, taxes, professional fees, closing costs and fees)	(1) Lowest possible rate (2) Long term	(1) High "soft costs" (2) Reasonably complex, time-consuming process (3) Must comply strictly with IRS code (4) Certain possible tax disadvantages (see Appendix A) (5) Program heavily oversubscribed	Usually the items financed, can also include other security and personal guarantees

Chapter 3

SELECTING FROM AVAILABLE PROGRAMS TO MATCH FINANCING NEEDS

Introduction

Although Chapter 2 describes the major public programs available to help firms finance air pollution control, it gives no sense for how such programs actually work. By presenting six hypothetical situations, this chapter shows how firms can benefit from EDIC/Boston assistance and how these programs can be utilized. Each situation is a story, a "scenario." In each, a hypothetical Boston firm is described together with its financial condition, its relationship with its bank, and the reasons it needs financing. Although the firms are hypothetical, the financing problems they face are very real. The hypothetical firms in the scenarios presented have all turned to EDIC/Boston for help with these problems. The scenarios trace the likely thought processes of the EDIC/Boston staff in determining which financing program(s) to recommend to each firm and why one of the programs may be preferable to another. Presented with each scenario is an exhibit that summarizes the firm, its project, and its financing needs.

It should be stressed that the companies described are not real and that these are not case studies. In order to avoid getting bogged down in detail with each scenario, the financial condition of each firm is only outlined by such characteristics as total revenues, net income, number of employees, and past and expected future growth rates. In considering actual loan applications, banks, of course, look at all details of a potential borrower's financial condition that affect the applicant's credit-worthiness and the likely collateral value of the items to be financed. Depending on the credit-worthiness of the firm and its other assets which are not already pledged for other debts, the collateral value of the items to be financed may or may not be of critical concern to the bank. In these scenarios, the emphasis is on how the public financing methods can assist worthy firms rather than on the bank's consideration of these issues.

It should be noted that this chapter does not deal with the steps in the application process for the financing programs. That process is covered in Chapter 4.

Scenario 1: Able Coatings - Financing a Small Purchase of
Pollution Control Equipment with an SBA-Guaranteed Loan

Able Coatings is a very small, family-owned and operated business that applies decorative coatings to small appliances. The process is quite standard, involving spraying two coats of solvent-based coating onto the metal and plastic pieces as they pass by on a conveyor belt. Able has only one line and 13 employees on two shifts. It had sales last year of \$600,000, with a profit after tax of \$32,000, and expects about 10-15% better returns this year. Able has 3 major customers, two of whom are planning to add new appliance lines and want Able to coat at least some of those new lines.

Able is owned and managed by Jim and Beth Farquahr, both of whom work at the plant (they also keep the books themselves). Jim was a product manager with one of Able's customers for four years when he decided to go into business for himself two years ago. They bought Able from the previous owners, also another couple, who wanted to retire. Able had always stressed quality, and Jim and Beth have carried on that tradition. They have gone so far to keep Able's name synonymous with quality that they operated the line themselves one night from midnight to 6 a.m. to replace some defective pieces that had been reported to them that afternoon.

The Farquahrs bought Able eighteen months ago because it was a stable business with good growth possibilities. Able owns its building and rents the second floor to a moving and storage company as warehouse space on a year-long lease. There is ample room on the second floor for another coating line and the extra inventory it would entail.

Jim and Beth use the bank that helped them finance the purchase of Able as their only bank. Relations with the bank are quite cordial; their banker knows that Jim and Beth are good business people. The bank has already extended a larger line of credit to Able than it ordinarily would to a business that size, primarily on the basis of confidence in its management.

Able's financing problem stems from air pollution control requirements. There are currently no pollution controls on Able's coating process. The solvent-based coatings Able uses emit a significant amount of air-borne pollutants and the Farquahrs have recently been informed by the Massachusetts Department of Environmental Quality Engineering that they are violating the clean air regulations which have been adopted by the state and submitted to EPA. They hired an environmental engineer who specializes in advising smaller operations and he informed them that they have two basic options to comply with the law:

- (1) Modify Able's process by changing from solvent-based coatings to powder coatings. This change requires the purchase of new capital equipment costing \$56,000, but will save about \$2,000 per year in expenses because the coating material is a little cheaper and a little less fuel will be used. This alternative will reduce solvent emissions by 90% and will not adversely affect product quality or Able's ability to satisfy its customers.

- (2) Add control equipment. This equipment would be a carbon adsorption unit for the coating booth and a catalytic incinerator with 35% primary heat recovery for the drying oven. This option will cost \$539,000 initially and \$32,000 annually to operate and maintain. It will be 82% efficient in removing solvent emissions.

It was not very difficult for Jim and Beth to choose the process change, since it is both cheaper and more efficient, but even \$56,000 is a lot of money for them. Their banker looked at a \$56,000 investment with little or no value as collateral that yielded only a \$2,000 per year return and shook his head. He told them that the bank already felt over-extended to them and was drawing the line. With no other established banking relations, they approached EDIC/Boston.

Upon hearing of the Farquahrs' situation, the EDIC/Boston staff knew that the only feasible alternative was an SBA 7(A) loan guarantee. The project was simply too small for the other programs. Able, with its thirteen employees, fulfilled the SBA 7(A) size standards for a manufacturing firm (the smallest standard is set at a maximum of 250 employees). When approached about an SBA 7(A) guarantee, the Farquahrs' banker was ambivalent. But he talked it over with a senior vice-president who thought it was an excellent way to help a good customer, provided SBA would be willing to guarantee at least 85% of the bank's portion.

Able obtained financing through the SBA 7(A) program, paying 20% down and obtaining the other 80% from its bank. 85% of the bank's portion was guaranteed by the SBA. It was only through EDIC/Boston's help and SBA's participation that Able could get this loan to comply with the state pollution regulations. See Exhibit 3-1 for a summary of this deal.

EXHIBIT 3-1

Profile of Scenario 1

Type of Business: Small, family-run coating operation.

Annual Sales: \$600,000.

Annual Profit After Tax: \$32,000.

Number of Employees: 13.

Amount of Financing Needed: \$56,000.

Items to be Financed: Air pollution control equipment.

Firm Financial Condition: Good, growing.

Relationship with Bank: Bank has faith in Able's management, but has already lent Able a great deal for a firm Able's size. Unwilling to lend more on standard terms for unproductive asset with no value as collateral.

Financial Arrangement Chosen: SBA 7(A) guaranteed loan:

Bank	\$44,800	(85% guaranteed by the SBA)
Able	\$11,200	
Total	\$56,000	

Scenario 2: Beech Manufacturing - Financing a Bubble Transaction

For this scenario, turn back the clock on Able Coatings in Scenario 1. Assume that while Jim and Beth were negotiating with their banker, they saw an advertisement in a trade magazine in which Beech Manufacturing (a large producer of small metal novelties such as desk sets, awards, and knick-knacks) was seeking a partner for a "bubble" transaction. A bubble permits one firm to comply with air quality standards by having another firm reduce emissions on its behalf. Current air quality regulations require certain firms (such as Able) to reduce their emissions into the air. A firm is not necessarily required to reduce emissions at its own plant in order to comply with these regulations, however. Instead, it may simply arrange for another firm to reduce emissions sufficiently. Thus, if Able is required to reduce its emissions by, say, 10 tons per year, it could contract with Beech to reduce Beech's own emissions by that amount.

That is precisely what Beech was proposing. Beech is planning to replace its old, solvent-based coating line (which is constantly breaking down) with more modern equipment which will have the same capacity. Pollution control will be needed for this new line. Beech Manufacturing had two options for pollution control in its new replacement line. It could use waterborne coatings which eliminate 80% of the emissions, or it could use powder deposition with 90% efficiency in pollution reduction. The latter option would cost \$40,000 more to install than the former, but it would reduce emissions further and it could potentially save significantly more than that each year in lower material costs. Beech expected that the lower material costs would not be fully realized, however, because of one of powder coating's main drawbacks: color changes between items are a problem. Unlike Able, Beech often changes colors on its line. To do this on a powder line, a firm either needs to clean out the equipment at each change or it has to have separate equipment for each color. Both of these cost money.

Thus, when Able contacted Beech, Beech told Able that it expects to save nothing on operating costs by installing a powder line. Although it would get 10% less emissions for the extra \$40,000 cost, it does not need the extra reduction in emissions to comply with air pollution regulations. As it turned out, Able did need such a reduction and, since Beech's operation was much larger than Able's, this 10% reduction would be enough for Able to comply with the air pollution regulations. Beech offered to "sell" this reduction to Able for Beech's added initial installation cost of \$40,000.

Jim and Beth believe that it would really not cost Beech \$40,000 extra to install the powder line since it would probably save significantly on its material costs. Jim and Beth were more than willing to let Beech reap a profit on the deal as long as they, too, could save money. They felt that \$40,000 was a fair price to pay for the bubble; although they would be saving \$16,000 initially, they would be giving up the \$2,000 annual cost savings. See Exhibit 3-2. If the price were much higher, the initial savings would not be great enough to justify losing this annual savings. There was still one problem, however. They did not have the money. Beech was unable to help them finance their "purchase." Unfortunately, their banker still shook his head. They went to EDIC/Boston.

Again, all programs but SBA 7(A) were quickly eliminated because the requested financing was so small. When Jim, Beth, and EDIC/Boston approached the banker this time with the 7(A) deal, he was not only ambivalent as he had been in Scenario 1, he was actually quite negative. The proposal was a novel one and neither he nor the bank had ever been involved in such a deal before. The presence of a third party which would have physical possession and control over the collateral bothered him most about the proposal. What if Able defaulted and Beech would not give up the equipment or pick up the loan payments where Able left off? What if Beech went bankrupt and into receivership? What incentive would there then be for Able to continue paying on the equipment loan? How could the bank protect its interest? Because of these problems, the bank refused to participate in this project, even with an SBA guarantee.

This refusal did not prevent Able or EDIC/Boston from presenting the project to another bank for its consideration. Specifically, EDIC/Boston staff felt that Beech's bank might be more receptive since it would already have rights in the pollution control equipment because of its loans to Beech for its new line. In addition, EDIC/Boston staff had worked with Beech's bank on other deals and had often found the bank to be aggressive in seeking new business, financing projects that other banks had refused. With Able's permission, EDIC/Boston prepared an information package describing Able's proposal and gave it to Beech's banker. EDIC/Boston staff then accompanied Jim and Beth to a meeting with Beech's banker and presented the deal to the banker. After learning the details of the proposed project and meeting Jim and Beth, he was indeed willing to participate in the 7(A) deal. He saw a chance to get a new, growing customer while having the protection of an SBA guarantee.

This led the way for Jim and Beth to close the deal with Beech. Able put up \$8,000 (20%) and Beech's bank, \$32,000 (80%), of which the SBA guaranteed 85%. The guarantee again was of critical importance. Exhibit 3-2 summarizes the deal.

EXHIBIT 3-2

Profile of Scenario 2

Type of Business:	Small, family-run coating operation.	
Annual Sales:	\$600,000.	
Annual Profit After Tax:	\$32,000.	
Number of Employees:	13.	
Pollution control options:	(1) Process Change	(2) Bubble Transaction
Initial Cost	\$56,000	\$40,000
Annual Savings	\$ 2,000	None
Amount of Financing Needed:	\$40,000.	
Items to be Financed:	Air pollution control, part of a bubble.	
Firm Financial Condition:	Good, growing.	
Relationship with Bank:	Bank has faith in Able's management, but has already lent Able a great deal for a firm Able's size. Unwilling to lend more on standard terms, particularly for a nonproductive asset in the control and possession of another firm.	
Financial Arrangement Chosen:	SBA 7(A) guaranteed loan:	
	Bank	\$32,000 (85% guaranteed by the SBA)
	Able	<u>\$ 8,000</u>
	Total	<u>\$40,000</u>

Scenario 3: Crosby Metals - Financing Both Air Pollution
Control Equipment and Working Capital

Crosby Metals is a small, independent (job shop) gray iron foundry, making cast iron machine parts and gears, mainly for industrial uses. It employs fifty-six people full time. It had sales of \$3,100,000 and after-tax profits of just over \$115,000 last year, all of which was kept in the business since accounts receivable and inventory together increased more than that amount. Bob Randolph, the owner, takes only a \$30,000 annual salary. Both sales and profits have grown in each of the five years since Bob bought the operations from his former boss (Bob had been shift foreman). Although he had put all his resources into the down payment on the purchase price, he had to pledge the entire assets of the operation, including inventory and accounts receivable, in order to finance it.

The success of the Crosby Metals has mainly been due to Bob's efforts at getting new customers and cutting costs. The former owner had inherited the business from his father, had never attempted to build up the business, and had kept his family on the payroll despite their half-hearted work efforts. Crosby now has twice the sales and 25% less overhead than when Bob bought the firm. The major reason for not expanding even faster has been an inability to get supplies--suppliers were demanding cash payments at a time when his customers were asking for longer payment periods. He was caught in the middle and ended up sacrificing present growth in exchange for keeping customers happy. Bob plans significant expansion in the future, adding both more equipment and plant space.

Bob is presently seeking \$180,000 in order to comply with Massachusetts clean air regulations and to obtain working capital to finance more accounts receivable and inventory. The air pollution control he plans is a pulse-jet baghouse for his oil-fired boiler (capacity 20,000,000 BTU/hour and exhaust volume of 8,600 actual cubic feet/minute at 400°F). This is one of the more common means of controlling emissions from an industrial boiler. This equipment will cost \$130,000 installed and have annual operating and maintenance costs of \$15,000 per year. Because Crosby is growing, Bob expects the annual costs to be no problem. Bob needs the initial \$130,000 for the pollution control equipment and the other \$50,000 for working capital. Unfortunately, Bob is only able to make about a 5% down payment. He has inherited some bonds from an aunt; but he would prefer not to have to sell them or borrow against them because (1) he fears he will need that money for his later expansion, and (2) their value is presently quite depressed due to high interest rates. His banker is friendly to him and believes his favorable sales and profit projections. But his banker sees the firm's assets as entirely pledged and the proposed new equipment as non-productive and so specialized that it will make very poor collateral.

Bob approached EDIC/Boston with his problem. The EDIC/Boston staff reasoned that the entire deal (\$180,000) was just on the borderline of being large enough to justify considering an industrial revenue bond, but the

presence of working capital eliminated that option. Without the working capital element, the pollution control equipment is simply not large enough to make an industrial revenue bond feasible.

The working capital could, in fact, only be financed under the SBA 7(A) program or with a bank line of credit. In the latter case, SBA 502 or 503 would be used to finance the pollution control equipment. Crosby qualified for all of these SBA programs on the basis of its size. For 502 and 503, its net worth of \$860,000 was below the \$6,000,000 cut-off and its average annual profit for the past two years of \$110,000 was well below the \$2,000,000 limit. For 7(A), the maximum size test here is based on employees, and fifty-six employees is below the smallest limit established by SBA for manufacturing firms (250 employees). In looking at the other available program at EDIC/Boston's disposal, the special BLDC Targeted Revolving Loan Program could not be used for this deal because no jobs would be created (this program might be available for Crosby's later expansion if significant numbers of new jobs are created, however).

In talking with Bob's banker, EDIC/Boston staff found him very receptive to the guarantee feature of SBA 7(A) and 502. He did not find 503 attractive, even though the bank would be in a first position and would be lending only one-half of the equipment cost (SBA and BLDC would be lending the rest), because the term required would be too long. Under either the 7(A) or 502 program, the required term would be shorter than under the 503 program, but the bank would still be extending its usual 5-year maximum term on equipment. The promised guarantee made the bank willing to do this, however.

Bob, of course, liked the longer term and better interest rate of 503. The important thing to him, though, was obtaining the financing. If the bank was willing to accept a guarantee but not the longer term of 503, he would go along despite the greater expense. He pushed the bank to accept a 502 package rather than 7(A) because then he knew he could leave his bonds out of the deal (in a 7(A) package, the SBA sometimes requires some of the owner's personal assets to be sold and invested in the deal).

Thus, a 502 loan guarantee package was agreed upon for the \$130,000 equipment purchase and installation with the bank putting up 90% for seven years, 90% of which was guaranteed by the SBA. BLDC and Crosby Oil each put up 5%. The SBA guarantee sufficiently reduced the bank's risk in this deal that it could finance the \$50,000 of working capital through a line of credit. This deal is summarized in Exhibit 3-3. Bob's personal guarantee was required on both the loan under 502 and the line of credit, but he was getting financing at a competitive rate and for a seven year term, without selling or borrowing on his inheritance. The bank was happy with the guarantee, which allowed it to keep a good, growing customer satisfied.

EXHIBIT 3-3

Profile of Scenario 3

Type of Business:	Foundry.
Annual Sales:	\$3,100,000.
Annual Profit After Tax:	\$115,000.
Number of Employees:	56.
Amount of Financing Needed:	\$180,000.
Items to be Financed:	Pollution control equipment (\$130,000) and working capital (\$50,000).
Firm Financial Condition:	Some cash flow problems, little available collateral; future growth projected and good past growth record. However, little down payment available.
Relationship with Bank:	Good, but bank unwilling to lend on non-productive asset with no collateral or guarantee, especially for long term.
Financial Arrangement Chosen:	SBA 502 guaranteed loan for equipment, bank line of credit for working capital.

Scenario 4: Done-In-A-Flash Dry Cleaning - Financing Expansion
and Air Pollution Control Equipment

John Dupee and Steve Costello each owned 50% of Done-In-A-Flash. Together, they started the business 12 years ago and have built it up from a small dry cleaning plant to a major industrial dry cleaner (rental uniforms, linens, etc.) and water laundry operation. John and Steve have a dream that they have shared from the beginning of their enterprise--to have the largest, most successful, full-service cleaner in Boston. There are several plants now which are larger, but if Done-In-A-Flash's projections are accurate, there will be a different leader in sales in the city in five years. With 100 employees, Done-In-A-Flash's sales were \$2,800,000 last year and its profit after tax was \$110,000. Done-In-A-Flash has shown an annual 18% compound growth rate in sales and a 22% compound growth rate in profits over the last 12 years (these growth rates have slowed a bit in the last few years, but recent growth has still been impressive in relation to the rest of the industry).

High interest rates seem to be getting in the way of their dream, however. They want to add 11,000 square feet to their plant (they already have the available land) and to purchase pollution control equipment. The plant addition will cost \$260,000; the bank is willing to finance that for twenty years at a floating rate equal to prime plus 2% (at the time of this scenario, prime is 20-1/2%). The equipment will cost an initial \$140,000, but because of solvent recovery, it will yield a return of \$17,000 per year over and above its operating and maintenance costs. The specific equipment to be purchased is two carbon adsorption units for their two petroleum-solvent, 300-pound capacity washers. At \$70,000 each, these units are 75% to 80% efficient in reducing emissions of volatile organic compounds (VOC) created by the use of solvent. This equipment is not yet required by law, but EPA is moving towards standards to control petroleum-solvent dry cleaning. Some of Done-In-A-Flash's competitors have already purchased such equipment and both John and Steve feel it would be a good business decision at this time.

Unfortunately, the bank will only loan them this \$140,000 for seven years at a floating interest rate of prime plus 3%. On top of this, it is requiring a compensating balance of 20% of the loan amount (\$28,000) to be kept in the firm's bank account. John felt that Done-In-A-Flash simply could not live with these terms. Done-In-A-Flash's banker noted that the terms of the equipment loan would be more attractive if the planned purchase would increase productive capacity in some way or would show a better return. The banker really likes John and Steve and brags about Done-In-A-Flash as her only customer that always does better than its projections. She pointed out to John and Steve that many of her other customers would not be able to obtain financing for pollution control equipment at any rate from her bank. That was little solace to them.

It was at this point that John and Steve turned to EDIC/Boston. The first thought of the staff at EDIC/Boston was an industrial revenue bond since it has a very attractive interest rate. Done-In-A-Flash's banker took the idea to the loan committee, but they turned it down because the bank did not have the capacity in its portfolio for any additional tax-free investments. As discussed in Chapter 2, most banks have a policy of taking on only a limited amount of tax-exempt financings. Tax-exempt investments pay a lower rate of interest than standard deals, but the tax savings ordinarily more than makes up for this. If, however, too much of a bank's money is tied up in tax-free bonds, it will not earn enough money to have to pay taxes and there will be no taxes to be saved. In such a case, the bank would earn a reduced amount of interest and not get any tax benefit. Done-In-A-Flash's bank had apparently already entered into as many tax-free deals as its policy allowed.

EDIC/Boston next suggested an SBA 503 package since it had the lowest interest rate of the remaining options. Done-In-A-Flash, with a net worth of \$1,350,000 and an average profit after tax for the past two years of \$220,000, fits within the SBA requirement for a 503 package (net worth of \$6,000,000 or less and average net profit after tax for the last two years of \$2,000,000 or less). The SBA 503 package would not only lower the interest rate for Done-In-A-Flash, but extend the term.

The bank liked its reduced exposure under a 503 deal, but it was not happy with the fifteen year term that SBA 503 packages generally carry. It was willing to increase the term on the equipment to 15 years, but only if the term of the new construction was decreased to fifteen years, making the entire package have a fifteen-year term. The bank was also willing to drop its compensating balance requirement but now wanted an interest rate on the entire deal of prime plus 3%, instead of prime plus 2% on the construction portion and prime plus 3% on the equipment. Done-In-A-Flash's banker let it be known that the bank was only making these major concessions to please a long-term customer.

The SBA felt that the expected useful life of both the equipment and the construction was 20 years, so its debenture would have a term of 20 years, longer than the bank's portion, but perfectly permissible.

Done-In-A-Flash was able to put \$30,000 (7-1/2% of the total) into the deal as a down payment. The BLDC put up \$10,000 (2-1/2%). The SBA debenture was in the sum of \$160,000 (40%) and the bank lent the remaining 50% (\$200,000). Despite the bank's increase in the interest rate on its contribution, Done-In-A-Flash saved an estimated 4 to 5% on its overall effective interest rate, mainly due to the low rate on the SBA debenture. Done-In-A-Flash also benefitted from a longer overall term (fifteen years on the bank's portion and twenty years on the SBA debenture instead of seven years on the equipment and 20 years on the construction). This deal is summarized in Exhibit 3-4.

EXHIBIT 3-4

Profile of Scenario 4

Type of Business:	Industrial cleaning.										
Annual Sales:	\$2,800,000.										
Annual Profit After Tax:	\$110,000.										
Number of Employees:	100.										
Amount of Financing Needed:	\$400,000.										
Items to be Financed:	Plant expansion (\$260,000) and pollution control equipment (\$140,000).										
Firm Financial Condition:	Profitable and growing.										
Relationship with Bank:	Good. In fact, bank is willing to lend, but only at high rates. Bank is not willing to take tax-free bond, but would like to help good, long-term customer.										
Financial Arrangement Chosen:	SBA 503 loan package:										
	<table border="0"> <tr> <td>Bank</td> <td>\$200,000 (50%)</td> </tr> <tr> <td>SBA debenture</td> <td>160,000 (40%) <u>a/</u></td> </tr> <tr> <td>BLDC</td> <td>10,000 (2½%)</td> </tr> <tr> <td>Firm</td> <td><u>30,000</u> (7½%)</td> </tr> <tr> <td>TOTAL</td> <td>\$400,000</td> </tr> </table>	Bank	\$200,000 (50%)	SBA debenture	160,000 (40%) <u>a/</u>	BLDC	10,000 (2½%)	Firm	<u>30,000</u> (7½%)	TOTAL	\$400,000
Bank	\$200,000 (50%)										
SBA debenture	160,000 (40%) <u>a/</u>										
BLDC	10,000 (2½%)										
Firm	<u>30,000</u> (7½%)										
TOTAL	\$400,000										

a/ For simplicity, the debenture amount shown here and in the text does not reflect the approximately \$6,000 in processing fees and payments to a reserve account that would be added to the face amount of the SBA debenture. This sum would be made a part of the principal amount due and would make the SBA debenture approximately \$166,000.

Scenario 5: Elton Fabrics - Financing a Relocation to Boston, with Expansion and Air Pollution Control Equipment

One hundred years ago, Elton Fabrics was a leader in textile manufacture. In the early twentieth century, it declined in importance with the shift of much of the country's textile mills from the northeast to the south. It moved to much smaller quarters in Cambridge. Under young and ambitious management (four previous employees, the McKay brothers, bought the operation from a conglomerate anxious to get rid of a "dog"), the firm began to flourish and grow anew. Its original product line has been completely scrapped; it now coats fabric rather than manufactures it. Its coating operation adds chemicals to fabrics that make them stronger, more stable, or water or acid repellent. Elton has done well of late, particularly with some specialty coatings that have just been developed.

When its present lease expires, Elton is hoping to be able to move from Cambridge to a new, larger location in Boston. As part of the move, Elton will be adding ten employees to its present full-time staff of fifty. Purchase and renovation of the building will cost about \$530,000. Unfortunately, Elton's expanded capacity will be sufficiently large to require air pollution control equipment. The new coatings Elton uses are all organic based, so a change to a less-polluting water-based coating operation is impossible. The least expensive and most efficient alternative is a catalytic incinerator with primary and secondary heat recovery. It costs \$220,000 installed and will add about \$23,000 in annual operating cost. The annual operating cost is no trouble for a growing firm like Elton, but the \$220,000 seemed almost like a waste to the McKay brothers.

It seemed that way to their bank also. Although the bank had been very cautious five years ago about lending four young men (then twenty-two to thirty-six years of age) \$200,000 to buy the business, the McKays had shown that their new ideas were as sound as their management. With sales last year of \$4,100,000, five times the sales of ten years ago, and after-tax profits up to \$240,000 from a deficit as little as four years ago, Elton was doing very well indeed. The bank was enthusiastic about the proposed move and expansion and was willing to lend Elton the \$530,000 it needed for it for a 15-year term.

By squeezing all their individual resources, Elton and the McKays could come up with only \$150,000. They needed to preserve their working capital for increases in inventory and accounts receivable. That left the deal \$70,000 short. The bank would not budge on its \$530,000 figure. The McKays needed help. Their banker referred them to EDIC/Boston.

As far as EDIC/Boston was concerned, if this deal did not go through, Boston would lose 60 jobs, since that is how many Boston jobs would be created by Elton's move from Cambridge (Elton would be adding 10 employees to its present staff of 50, and all of these jobs would be in Boston after the relocation). Thus, EDIC/Boston was very anxious to help in any way it could. The fact that so many jobs were involved allowed the BLDC to offer to put the needed \$70,000 into the deal through its Targeted Revolving Loan Program. The

BLDC was also encouraged here by Elton's ability to come up with 20% of the total project costs.

Once both the bank and Elton could see that there was enough money available to seriously consider the deal, EDIC/Boston suggested an industrial revenue bond for the bank's \$530,000 portion. The McKays liked the interest rate and the bank was willing to take the tax-free income, although it demanded a fairly short twelve-year term. The brothers felt that the reduced interest cost was well worth taking a shorter term.

The deal was thus a combination of programs--the BLDC Targeted Revolving Loan Program and the industrial revenue bond program. See the summary in Exhibit 3-5.

EXHIBIT 3-5

Profile of Scenario 5

Type of Business:	Fabric coating.
Annual Sales:	\$4,100,000.
Annual Profit After Tax:	\$240,000.
Number of Employees:	50 expanding to 60.
Amount of Financing Needed:	\$750,000.
Items to be Financed:	Building purchase and renovation (\$530,000), air pollution control equipment (\$220,000).
Firm Financial Condition:	Strong, ready to relocate and expand, but needs to preserve working capital for growth.
Relationship with Bank:	Bank views expansion favorably, but not willing to finance pollution control equipment. Willing to put up maximum of \$530,000.
Financial Arrangement Chosen:	An Industrial Revenue Bond with a BLDC Targeted Revolving Loan:
	Industrial Revenue Bond (Bank) \$530,000
	BLDC Targeted Revolving Loan \$ 70,000
	Firm <u>\$150,000</u>
	TOTAL \$750,000

Scenario 6: Fancy-Print, Inc. - Financing a Large Purchase of
Air Pollution Control Equipment

The eight-color glossy marketing brochure of Fancy-Print, Inc. fitted the firm well. It had, after all, been designed and produced completely in-house. Joan Blumberg, President and General Manager, and the artwork team had written it and put it together. It had been printed on one of Fancy-Print's two high-speed presses. The brochure showed the firm's total graphics capabilities, from artwork to rotogravure printing facilities, in its finest light. Joan was proud of the result and so were the other owners who first saw it at the annual stockholders' meeting.

The stockholders' meeting was more of a party than a business meeting. The stock was fairly closely held by the members of five families and a few of their friends. Joan had a good bit of stock and so did her nephew who was chief pressman. Everyone was quite happy for another reason--Fancy-Print had just completed a record year of earnings (profits of \$1,000,000 with total sales of \$24,000,000) and was declaring a small dividend for the first time. A dividend had never been declared before mainly because Fancy-Print had never had four consecutive profitable years before. One year in every three or four always seemed to bring a downturn.

The news was not all good, however. Fancy-Print had just been informed that it was emitting too much air pollution. The firm had one year to comply with air quality standards or it faced the possibility of severe fines or even an involuntary cutback in operations. The stockholders felt it the duty of Fancy-Print to be a good corporate citizen and comply with the law.

Compliance would require the purchase of carbon adsorption equipment which would reduce solvent emissions. Two separate systems were available. The first would cost \$1,350,000 installed and be 75% efficient in stopping emissions while the second would cost \$1,400,000 installed and be 80% efficient. Both would allow Fancy-Print to satisfy clean air requirements. The decision between the two systems could not be made merely on the basis of initial cost, since the operating characteristics were different. As indicated in Exhibit 3-6, the first system cost \$261,000 per year to operate while the second cost \$276,000 a year to operate. In addition, both systems recovered the solvent kept out of the air. This solvent was quite valuable. The first system recovered \$315,000 annually and the second \$341,000 annually. Thus, system 1 would show a net annual benefit of \$54,000 (before taxes) while system 2 would show a net annual benefit of \$65,000 (before taxes). The more expensive system, as might be expected, is thus more efficient and yields a higher dollar return.

Joan went to see Fancy-Print's banker about helping her choose between these options and financing the option chosen. The banker said that the bank would consider neither of these options. Neither of them yielded sufficient

annual savings from solvent recovery alone and the bank did not like financing non-productive, pollution control equipment. He recommended that Joan go to EDIC/Boston.

EDIC/Boston saw that Fancy-Print's investment was large enough to warrant the efforts and costs for an ordinary industrial revenue bond or an SBA 503 deal, but both required a willing private lender. Rather than trying to find one, EDIC/Boston suggested that Fancy-Print attempt to obtain an SBA-guaranteed industrial revenue bond. The SBA guarantee is available specifically for pollution control projects, and it allows financing at the lowest possible interest rate. Joan was referred to MIFA (MIFA issues all SBA-guaranteed industrial revenue bonds in Massachusetts, including Boston).

MIFA was very positive. Fancy-Print's project clearly fit within the SBA's guarantee program. The firm also conformed with the program's requirements, with only 190 employees (the SBA cutoff for this industry is 500 employees) and profits in four out of the last five years (profits in three out of the last five years are required). In addition, the firm could afford to wait the six months or so it takes for an SBA-guaranteed industrial revenue bond to be processed and completed. Because issuance costs would add significantly to the amount being financed, MIFA suggested the first system, the less expensive of the two. The other option yielded a bit more in annual savings, but not enough to justify the additional debt servicing costs.

For Fancy-Print, an SBA-guaranteed industrial revenue bond would make possible what might otherwise be an impossible deal. See summary in Exhibit 3-6.

EXHIBIT 3-6

Profile of Scenario 6

Type of Business:	Rotogravure printing.	
Annual Sales:	\$24,000,000.	
Annual Profit After Tax:	\$1,000,000.	
Number of Employees:	190.	
Pollution Control Options:	(1)	(2)
Initial Cost	\$1,350,000	\$1,400,000
Annual operating costs	\$261,000	\$276,000
Value of solvent recovered annually	\$315,000	\$341,000
Net annual benefit (before taxes)	\$54,000	\$65,000
Control efficiency	75%	80%
Amount of Financing Needed:	\$1,350,000.	
Items to be Financed:	Pollution control equipment.	
Firm Financial Condition:	Good.	
Relationship with Bank:	Bank not willing to finance large, non-productive asset.	
Financial Arrangement Chosen:	An industrial revenue bond with an SBA guarantee.	

Summary

The scenarios in this chapter show just how EDIC/Boston and the public financing methods can help needy firms finance pollution control equipment (see Chapter 2 for a description of the advantages, terms, constraints, and disadvantages of these financing methods). This summary reviews some of the major issues that arose for the firms described here.

In Scenarios 1 and 2, only the SBA 7(A) loan guarantee program could effectively assist Able Coatings obtain a small loan; the other public programs discussed here are designed for much larger deals. In addition, in Scenario 2, EDIC/Boston worked with Able to find a new bank willing to finance a bubble transaction.

In Scenario 3, Crosby Metals needed both equipment and working capital financing. The equipment could be financed under SBA 7(A), 503, or 502, but only an SBA 7(A) loan guarantee or a bank line of credit was available to finance working capital. The bank found the term of the SBA 503 program too long to finance equipment, while the owner of Crosby did not like the possibility of having to liquidate some of his personal assets as might be required under an SBA 7(A) deal. This left the SBA 502 loan guarantee program which allowed Crosby to obtain a loan with little down payment and for a longer term than would otherwise have been available.

In Scenario 4, EDIC/Boston was able to obtain an SBA 503 loan, with a very low interest rate, for Done-In-A-Flash, a firm with a strong financial condition and very good relations with its bank.

In Scenario 5, Elton Fabrics was planning on relocating in Boston, a move that would significantly add to Boston's employment rolls. Elton had a bank commitment to finance most of its relocation expenses, but it still needed money to help purchase air pollution control equipment. Since so many jobs were at stake, EDIC/Boston was able to help arrange a BLDC Targeted Revolving Loan. This program permitted Elton to obtain funds from the the bank through an industrial revenue bond, making the overall interest rate extremely low.

Finally, Scenario 6 shows how a large air pollution control project can be financed with an SBA-guaranteed industrial revenue bond. Not only does this program make possible an otherwise impossible deal here, but Fancy-Print is able to obtain the lowest interest rate available.

This chapter shows both how firms can benefit from these programs and how EDIC/Boston works with firms and lenders in selecting the appropriate financing method and helping to get bank approval. In addition, EDIC/Boston guides firms through the application process for the program chosen, as seen in the next chapter.

CHAPTER 4

APPLYING FOR FINANCING

This chapter begins where the scenarios in Chapter 3 end. We outline here the procedures which an applicant must follow in order to obtain funds from the six financial assistance programs described in Chapter 2. There are only four sections in this chapter, however, because the application process for the SBA 503 Loan Program, SBA 502 Loan Guarantee Program, and the BLDC Targeted Revolving Loan Program are so similar they are all treated together. The four sections of this chapter are:

1. SBA 503, SBA 502, and the BLDC Targeted Revolving Loan Program;
2. SBA 7(A) Loan Guarantee Program;
3. Ordinary Industrial Revenue Bonds; and
4. Industrial Bonds with an SBA Guarantee.

In each section we trace all the steps in the application process, from the initial meeting with EDIC/Boston to the closing of the deal. EDIC/Boston can be invaluable in telling an applicant what he/she has to do, in cutting red tape, and in delineating the options available. In order to most effectively use the services of EDIC/Boston, however, the applicant must do a number of things. He/she will have to gather and supply certain information, attend meetings, and answer some questions; sometimes the applicant will have to hire professionals, such as lawyers or accountants. EDIC/Boston, BLDC, BIDFA, or MIFA will tell a firm when it must do what. This chapter describes both what a firm must do and what help these agencies will supply in applying for publicly assisted financial packages.

A. SBA 503, SBA 502, and the BLDC Targeted Revolving Loan Program

Although there are some major differences in how financing is packaged in each, the application process for these three financing mechanisms is very similar. EDIC/Boston directly participates and works closely with the applicant in all three programs. As with all the application processes discussed in this chapter, the description given below will cover each major step in the process. Where there are distinctions among the three programs, those will be pointed out.

The basic steps as outlined below are also summarized in Exhibit 4-1:

1. A firm usually makes its initial contact with EDIC/Boston by telephone. Thus, EDIC/Boston staff has the opportunity to ask that the firm send or bring certain information for the firm's first meeting with EDIC/Boston:

EXHIBIT 4-1

Summary of Application Process for SBA 503, SBA 502,
and the BLDC Targeted Revolving Loan Program

1. Initial meeting(s) with EDIC/Boston.

Firm must supply preliminary business and financial information.

2. Financing program chosen.

Agreement and Understanding signed.

3. Bank interest investigated.

Firm must supply detailed information.

4. Bank commitment obtained.

BLDC approval obtained.

SBA approval obtained on SBA 503 or SBA 502 applications.

5. Loan closed.

- (i) a description of the company and its history;
- (ii) a description of the project, its costs, and its benefits;
- (iii) historical financial statements (such as balance sheets and income statements) for the last three years; and
- (iv) current (interim) financial statements.

The owner(s) of the firm may come alone to the first meeting, or, if he/she prefers, be accompanied by his/her banker (especially if the bank referred the firm to EDIC/Boston) or accountant.

At this first meeting, EDIC/Boston staff will look at the information which the firm has supplied and will often be able to tell the owner on the spot whether or not EDIC/Boston programs could potentially meet his needs. The basis for a negative decision at this point could be, for example, that the project is not feasible, the firm is not sufficiently well established, the management has not proven itself, or the firm is undercapitalized. In such cases, EDIC/Boston may refer the firm to another agency that might be able to help.¹ Or, the EDIC/Boston staff member will indicate that EDIC/Boston may be able to help meet the firm's needs. Often in such instances, however, more information is needed before EDIC/Boston can say with any certainty which program might be best or that EDIC/Boston can help.

How much more information is needed and how many additional meetings with EDIC/Boston will be required depend, in large part, on how far along the firm itself is in its planning process. EDIC/Boston needs to have fairly solid information about the project and its costs before it can really help the firm. If the project is only a vague concept, a number of meetings will probably be required as the firm gains a firmer picture. On the other hand, if the project is well-defined and firm bids on its cost have already been obtained, the process can be much shorter. The firm can therefore shorten the application process by doing more advance planning.

2. Once the firm has come far enough along so that EDIC/Boston can pick out one of the three programs (SBA 503, SBA 502, and the BLDC Targeted Revolving Loan Program) as suitable for the project, the firm will be expected to sign an "Agreement and Understanding" with EDIC/Boston. The Agreement and Understanding establishes the following:

¹See Appendix B for a list of some of these agencies.

- (i) Boston Local Development Corporation (BLDC, staffed by EDIC/Boston), whose participation is required in all three programs, agrees to assist the firm in obtaining financing;
- (ii) The terms and conditions of the type of financing are set out (the Agreement and Understanding is a form document; a separate and distinct form is used for each of the three financing methods);
- (iii) The firm states that it recognizes that the creation of new job opportunities for Boston residents (especially low-moderate income residents) is one of the primary goals of EDIC/Boston financial assistance programs and promises to work towards hiring at least 50% of its new workforce from Boston city residents;
- (iv) The firm agrees to provide certain information to BLDC, some of which has probably already been supplied. The required information includes:
 - Description of the business and its historical background.
 - Description of the proposed project and the anticipated benefits from the proposed financing.
 - Historical financial data (balance sheets and profit and loss statements from three previous years and federal corporate tax returns, if these statements are not audited).
 - Current financial statements (for 502 and 503 packages, these statements must be no more than 60 days old as of the date of submission of the application to the SBA).
 - Projected financial information (income statements, cash flows, and balance sheets).
 - Personal financial statements of the principals of the firm.
 - Supporting loan documentation regarding the project (e.g., independent appraisals, construction bids, equipment-related information).

- Information on employment by the firm (such as pay, types of jobs, minority representation, number of Boston residents, etc.); and
- (v) The firm agrees to submit financial reports, annually and as otherwise requested, to the BLDC during the term of the loan.

When it signs the Agreement and Understanding, the firm pays a \$250 non-refundable initial processing fee and agrees to pay any legal fees incurred by the BLDC and the other fees associated with the particular financing.

3. At this same time, bank interest must be investigated. The firm may already have a banker or a banker may even have made the referral to EDIC/Boston in the first place. If not, EDIC/Boston will help the firm find an interested bank, but EDIC/Boston will suggest that the firm first approach the bank with which it has previously done business unless it makes no sense to do so.

At this point, both the bank and the BLDC will require the firm to provide additional information and documentation as described above in the Agreement and Understanding. Projected financial information (balance sheets, income statements, and cash flow statements) will have to be developed; independent appraisals will ordinarily have to be obtained on any land or buildings being acquired; appraisals will often also be required on machinery or equipment which will be purchased; and construction bids on new buildings or renovations will have to be solicited. Personal financial statements of the owners and officers of the business will also be required. Development of such information can be time consuming and costly, and is not sought until it seems likely that financial assistance is possible and the firm is clearly committed to the project.

4. Once this information is obtained, EDIC/Boston will work with the firm and the bank to obtain bank commitment. After the bank gives its commitment, EDIC/Boston staff can present the package to the BLDC's Board of Trustees for its approval. The BLDC Board will look at a proposal much as a bank would, asking whether it is a prudent and viable deal and whether the firm is able to service the debt (make the required payments on the loan). The BLDC Board meets at least every other month, often monthly, and proposals must be ready ten days before the meeting at which they are considered. The firm usually does not attend the BLDC meeting at which its application is deliberated.

After BLDC approval, the package is sent to SBA for its approval in a 502 or 503 deal. The SBA examines the proposed financing package to ensure that the legal requirements (such as size and inability to obtain conventional financing) have been fulfilled. The SBA also applies subjective credit-worthiness criteria to establish that the deal makes good business sense and that the firm will be able to make the required payments on the loan. The SBA usually makes its decision in two to three weeks. Of course, the SBA is not involved in a BLDC Targeted Revolving Loan and no further approval is needed.

In all cases, EDIC/Boston staff will complete the required forms for the firm, but the firm will have to supply all the required information in order to obtain EDIC/Boston's assistance.

5. After the loan is finally approved, a period of time must still pass before the funds are available to the firm. The length of this time period depends on what is being financed and what legal issues must be finally resolved before closing the loan (such as title and zoning problems). BLDC will work with the firm, the bank, the SBA (if involved), and their attorneys to organize and coordinate the required loan closing(s).

At the time of closing, the BLDC processing and other fees for the particular program being utilized will be assessed. In the case of the SBA 502 and the BLDC Targeted Revolving Loan Program, these fees will have to be paid directly out of the firm's pocket. While some of the fees for a 503 loan are paid by the firm at the time of closing, some are instead added to the amount of the SBA debenture. Attorney's fees are generally not included in the closing costs and are handled separately. BLDC will also charge a small monthly servicing fee that is added to the regular monthly payments on the loan package.

B. SBA 7(A) Loan Guarantee Program

An SBA 7(A) loan guarantee can be obtained by the firm and its bank directly from the SBA and does not require contact with EDIC/Boston or BLDC approval as do the above three programs. EDIC/Boston will, if the firm so desires, assist a firm in putting together a 7(A) package. Because EDIC/Boston and BLDC involvement is limited, and because the application process for a 7(A) Loan Guarantee Package is quite similar to the process just discussed, this description will be brief. The steps required if EDIC/Boston does render assistance are described below and summarized in Exhibit 4-2:

1. EDIC/Boston will request that the firm provide the same basic preliminary information it would require under any program:

- (i) a description of the company and its history,
- (ii) a description of the project, its costs, and its expected benefits,
- (iii) historical financial statements (balance sheets and income statements), and
- (iv) current financial statements (for a 7(A) package, SBA requires that these be less than 90 days old as of the date of submission of the application to the SBA).

Once this information is provided, EDIC/Boston staff can determine whether a 7(A) loan guarantee will best help the firm.

EXHIBIT 4-2

Summary of Application Process for
SBA 7(A) Loan Guarantee Program

- (1) Initial meetings with EDIC/Boston.

Firm must supply preliminary business and financial information.

- (2) Bank participation sought.

Firm must supply detailed information.

- (3) Bank commitment obtained.

SBA approval obtained.

- (4) Loan closed.

2. As with the BLDC programs just discussed, bank participation is required in a 7(A) loan guarantee package. The firm may already have a bank lined up or EDIC/Boston will help the firm find an interested lender. The bank and the SBA will require the firm to submit such items as projected financial information (balance sheets, income statements, and cash flow statements); independent appraisals (the bank may help with these) on any land, buildings, machinery, or equipment which will be purchased; construction bids on new buildings and renovations; and personal financial statements of the owners and officers of the business.

3. EDIC/Boston staff will work with the bank in putting together a 7(A) package, even though BLDC approval and BLDC funds are not involved. EDIC/Boston will complete the necessary package of documents for the SBA based on the information supplied by the firm. Once bank commitment is obtained, this package is forwarded to the SBA. As with the other SBA programs, the SBA reviews the application to ensure that the proposed deal meets the legal requirements and that the firm is likely to be able to pay off the debt. SBA approval takes from two to three weeks.

4. Once SBA approval is obtained, EDIC/Boston's direct involvement basically ends. The firm now deals only with the bank and SBA. There will be a time lag between SBA approval and the loan closing to allow for the resolution of the usual legal issues (such as title and zoning problems). The firm will generally be required to reimburse the bank for the one percent guarantee fee that the bank paid to the SBA, but this charge can only be assessed after the bank actually incurs the expense. The only typical closing costs in a 7(A) package are any legal fees.

C. Ordinary Industrial Revenue Bonds

Ordinary industrial revenue bonds are issued by the Boston Industrial Development Financing Authority (BIDFA) which is staffed by EDIC/Boston. Once EDIC/Boston has determined that an ordinary industrial revenue bond is the appropriate financing vehicle, an applicant will follow these steps as summarized in Exhibit 4-3:

1. At the initial meeting with the firm, EDIC/Boston staff will explain the industrial revenue bond financing program, clarifying areas with which the firm is not familiar. Staff will suggest that the firm seek out a bank interested in participating, although bank commitment is not necessary at this juncture. Staff cannot help the firm find a lender under this program because such an action is technically a conflict of interest as BIDFA will formally be issuing the bond, so the firm must find a lender on its own.

2. Next, the firm will complete the BIDFA Project Review Statement. The firm must also obtain bond counsel acceptable to the lender. Counsel should be consulted in filling out the Statement. Among other things, the Statement asks for basic information on and a description of the firm and its owners and officers, the most recent financial statements, the firm's bank and bank officer, its credit history, whether and on what terms a commitment from a lender has been obtained, a detailed description of the proposed project and

EXHIBIT 4-3

Summary of Application Process for
Ordinary Industrial Revenue Bonds

- (1) Initial meeting with BIDFA (EDIC/Boston staff).

Lender participation sought by applicant.

- (2) Firm completes Project Review Statement.

Bond counsel acceptable to lender retained by applicant.

- (3) Initial BIDFA approval obtained.

- (4) Boston City Council approval obtained.

Mayor's approval obtained.

Project costs may now be incurred.

- (5) Final bank commitment obtained.

Final BIDFA approval obtained.

MIFA approval obtained.

- (6) Certificate of Convenience and Necessity issued.

Loan closed.

its costs, why the project is being undertaken, the anticipated effects of the project on employment, the vehicle traffic likely to be generated by the project, whether the project complies with all government regulations, and what further government approvals are required. A preliminary opinion of bond counsel that the proposed project and financing fulfill the statutory requirements for a tax-exempt industrial development bond should be submitted with the Statement, together with the \$250 non-refundable processing/screening fee. Both before and after the Statement is submitted and reviewed, EDIC/Boston staff are available to help firms provide the required information and to meet with the applicant and its bond counsel to discuss the project and industrial revenue bond financing.

3. The Statement and accompanying materials should be submitted by the firm at least two to three weeks before the meeting at which BIDFA Board review is sought (meetings are usually held once a month, on the third or fourth Wednesday). This allows sufficient time for review of the application to ensure that the project conforms with all applicable regulations, and for additional materials to be obtained from the applicant, if necessary. It is not required that the applicant have obtained the commitment of a lender (a bank) at this time. The BIDFA Board can grant initial approval without such a commitment. At the BIDFA Board meeting, the applicant and its bond counsel will be expected to make a brief presentation about the firm, the project, and the financing, and to answer any questions for the Board. The Board will look closely at the strengths and weaknesses of both the applicant and the proposed deal. It will pay special attention to the measurable benefits which can be expected from the proposed project, such as job retention and creation and investment in the city. A majority vote of the five-member Board will constitute initial BIDFA approval.

4. EDIC/Boston staff will then prepare the documentation required to submit the application to the Boston City Council and the Mayor for their approval. The City Council usually refers the matter to its Committee on Planning and Development. The Committee will schedule a public hearing at which all interested parties are heard. The applicant, bond counsel, and EDIC/Boston will be asked to make a presentation and should be prepared to respond to questions. The Committee will recommend a certain course of action to the City Council as a whole which will vote on the Committee's recommendation. If the proposed financing is approved, the Mayor must then sign the Council's approval. Most bond counsels agree that it is only after the Mayor accepts the Council's approval that the applicant can safely incur project costs. It must be remembered that if money is spent on the project too early, all or part of the project may no longer qualify for the benefits of this advantageous type of financing. Once the Mayor approves the project, interim financing can be obtained; the interest on this financing can be financed as part of the final bond.

5. The firm must now finish negotiations and reach final agreement with the lender on the terms of the loan. Both sides must be satisfied with the documents prepared by bond counsel. These documents, together with an application for Certificate of Convenience and Necessity and the final BIDFA resolution to be voted upon, should be submitted two to three weeks prior to the BIDFA Board meeting at which final action is sought. After BIDFA

approval, bond counsel must forward the final documents to the Massachusetts Industrial Finance Agency (MIFA) which must approve the issuance of the Certificate of Convenience and Necessity at a regularly scheduled meeting. MIFA normally requests that documents be received three weeks before the meeting at which they are to be considered. MIFA meetings are ordinarily held the first Thursday of each month.

6. The Massachusetts Commissioner of Commerce and Development will issue the Certificate of Convenience and Necessity once MIFA approval has been obtained. The bonds may then be issued and the bond proceeds distributed. Closing and other issuance costs may be financed as part of the bond. Funds are usually available to the firm within a week to a month after the Certificate is issued, depending on the arrangement between the firm and the bank.

D. Industrial Revenue Bonds with an SBA Guarantee

SBA-guaranteed industrial revenue bonds to finance pollution control projects are issued by the Massachusetts Industrial Finance Agency (MIFA), an entity which works in conjunction with, but is completely separate from, EDIC/Boston. If EDIC/Boston staff determines that an SBA-guaranteed industrial revenue bond should be considered by a firm, EDIC/Boston will refer the firm to MIFA. These are the steps that will then follow, as summarized in Exhibit 4-4:

1. The firm will discuss the project and financing options with MIFA. If it appears that an SBA-guaranteed industrial revenue bond should be pursued, the firm will be given a form entitled "Project Information Statement." MIFA staff will assist the firm in completing the Statement. MIFA staff will submit the completed Statement to the bond counsel retained for this program.

2. The Project Information Statement requests the usual information about the firm, its management, and the project, including:

- (i) a description of the business and its products,
- (ii) the firm's credit history,
- (iii) financial statements (either audited or, if unaudited, with the latest corporate tax return),
- (iv) a description of the items (i.e., land, building, machinery, equipment, associated fees) to be financed, together with their expected cost and useful life,
- (v) a description of the site of the proposed project,
- (vi) the reasons for undertaking the project,

EXHIBIT 4-4

Summary of Application Process for Industrial
Revenue Bonds with an SBA Guarantee

- (1) Initial meeting with MIFA.
- (2) Firm must complete Project Information Statement.
- (3) Firm must complete application for SBA guarantee (Form #1136).
- (4) MIFA visits firm's plant.
- (5) Initial MIFA approval obtained.

Project costs may now be incurred.

- (6) SBA approval obtained.
- (7) Final MIFA approval obtained.

Certificate of Convenience and Necessity issued.

Bonds sold.

(vii) a list of any public facilities (such as water, sewers, roadways, police, and fire protection needs) affected by the project, and

(viii) the expected effects of the proposed project on employment.

A special attachment is required to describe any pollution control equipment being financed, the processes used to control pollution, the reasons the equipment is being installed, and the other effects of the equipment (such as an increase in capacity). The information requested is very similar to that needed in the Project Review Statement for an ordinary industrial revenue bond. MIFA expects that the bond counsel will review the initial application package and give MIFA a preliminary opinion (in the form of a letter) that the planned project qualifies for an industrial revenue bond. The completed application must be accompanied by a non-refundable \$500 application fee.

3. While filling out the MIFA Project Information Statement, the firm will begin completing the SBA Form #1136, which requests the SBA guarantee. This form asks for basic information on the firm and the project, together with references (banker, three largest suppliers, and three largest customers). Enclosed with this application must be:

- (i) historical and current financial statements (balance sheets and income statements) for the last three years,
- (ii) projected financial statements showing the effect of the project and its financing,
- (iii) a statement from the Massachusetts Department of Environmental Quality Engineering that the proposed project will abate pollution or correct the pollution problem (this usually requires the assistance of an environmental engineer, but this is rarely a problem since the firm will probably already have hired such an engineer to help with the plans for the project), and
- (iv) a certification from the firm's bank that the firm satisfies the SBA's credit criteria and will be able to make the required payments on the bond (the bank assumes no legal or financial liability for this certification or "sponsorship").

MIFA will help the firm to collect all these data. The form will not be submitted to the SBA until after the approval of the MIFA Board of Directors, the next step.

4. While the firm is submitting its application, MIFA staff will visit the firm's plant to ensure that the proposed project will fulfill the legal requirements for industrial revenue bond financing. The specific questions the staff will ask depend on the particulars of the project, but they will be seeking additional information on the firm, the management, and the project. MIFA staff will be particularly interested in seeing how the proposed project will fit with the firm's present operations. The applicant should be prepared to answer questions or have someone available to help him do so.

MIFA staff will also be requesting BIDFA to issue a "waiver" authorizing MIFA to issue an industrial revenue bond to a Boston firm. There is rarely any problem in obtaining this waiver, but the BIDFA Board must approve it at one of its meetings.

5. Once the plant visit is complete, the application and waiver have been received and reviewed by MIFA, and the bond counsel has rendered a preliminary opinion that the specifics of the deal should qualify for an industrial revenue bond, the proposal is submitted to the MIFA Board of Directors. The Board's regular meetings are on the first Thursday of each month. The application should be completed two weeks before the meeting at which the project is to be considered. Usually, the firm does not need to be present at this meeting.

This initial consideration of the project by the Board serves only to certify that the project is eligible for an industrial revenue bond and fulfills the necessary criteria. No financial package has been arranged at this point. MIFA will approve the actual financing arrangements at a later date.

Initial MIFA Board approval is particularly significant to the applicant because it allows him/her to begin spending money on the project without jeopardizing the tax-free status of the industrial revenue bond. Interim financing can be obtained (even an ordinary industrial revenue bond can serve as interim financing) at this point. The interest on such financing can be financed as part of the final SBA-guaranteed bond.

6. It is at this point that the SBA form #1136, together with a \$250 non-refundable portion of the SBA application and processing fee, is sent to the SBA Washington office, not the local SBA office, for approval. SBA reviews the proposed bond to make certain that the firm fulfills SBA's size requirements, that the project qualifies for the program, and that there is a reasonable likelihood that the firm will be able to service the debt (make the required payments on the bond). It takes from two to three weeks to obtain SBA approval. Once the SBA commits itself to a guarantee, the underwriter handling the actual sale of the bond is contacted. MIFA has chosen Salomon Brothers, a well-known investment banking firm, since Salomon has worked successfully with MIFA on previous pollution control projects. The firm, underwriter, and the bond counsel now form a team dedicated to completing the necessary legal documentation to present to MIFA for its final approval.

7. Among the final papers that must be prepared are bond documents, title certificates, and applicable zoning authorizations. All these papers will be submitted to the MIFA Board for final approval. Again, the firm need not be represented at this meeting. After approval, MIFA will then authorize the Massachusetts Department of Commerce and Development to issue a Certificate of Convenience and Necessity for the project and the bonds can then be sold. Closing and issuance costs can be financed as part of the bond. There may still be a few remaining legal matters (such as the finalization of documents) which may delay sale of the bonds, but even if the underwriter can begin selling them immediately, it may take up to a few weeks for all bonds to be sold and the proceeds to be available to the firm.

It is crucial to note that it is not until this point that the underwriter will be able to determine what interest rate the firm will be paying on the bond. The market fluctuates so much that the underwriter will not assure the firm of a particular interest rate until the underwriter is ready to sell the bonds on the open market. Because this occurs only when the entire process is complete and the sale can commence, the firm can never be assured of a particular interest rate. The firm can ask the underwriter to hold off on selling the bonds until conditions are more favorable (that is, until interest rates go down), but there is no guarantee that conditions will improve. The firm can be assured that it is getting the lowest rate possible at the time, but no one can predict in advance what the rate will be.

Summary

As can be seen from the discussion in this chapter, EDIC/Boston will give qualifying firms a great deal of assistance in applying for the financing programs described in Chapter 2 (see that chapter for the advantages, terms, constraints, and disadvantages of these programs). EDIC/Boston involvement is required in the SBA 503, SBA 502, and BLDC Targeted Revolving Loan Program. For these programs, the applicant provides EDIC/Boston with the necessary information and EDIC/Boston completes the application forms, submits them to the appropriate agencies, helps the firm find a willing lender, and works with the lender to close the deal.

For the SBA 7(A) program, EDIC/Boston involvement is not required, but it will help a firm that requests its assistance by filling out the appropriate forms for submission to the SBA.

Under BIDFA's industrial revenue bond program, the firm will have to complete a Project Review Statement, find a lender, and retain bond counsel. BIDFA (staffed by EDIC/Boston) will assist the firm in obtaining the necessary approvals. Care must be taken to preserve the tax-exempt status of the bond.

MIFA (completely separate from EDIC/Boston) is the agency that helps firms obtain SBA-guaranteed industrial revenue bonds. The firm will be expected to complete a Project Information Statement and an application for an SBA guarantee. MIFA has already selected bond counsel and an underwriter for the program and will assist the firm at each step in the process. Again, care must be taken to preserve the tax-free nature of the bond.

The first step for firms needing financial assistance should be to contact EDIC/Boston. This chapter has outlined both what the firm can expect of EDIC/Boston and what EDIC/Boston will expect of the firm. By working together, both parties can obtain benefits important to them--the firm by obtaining financing on favorable terms, and EDIC/Boston by fostering economic growth in Boston.

APPENDIX A

SUMMARY OF THE MAJOR
INCOME TAX IMPLICATIONS OF
POLLUTION CONTROL FINANCING

APPENDIX A

Summary of the Major Income Tax Implications of Pollution Control Financing

In today's world of high individual and corporate tax rates, no business decision can be properly made without considering its tax consequences. In the main body of this handbook, particularly in Chapter 2, some of the major tax implications of different financing methods have been discussed. This appendix reviews these implications and discusses some basic tax aspects of purchasing pollution control equipment that are relevant to all financing methods.

This appendix is divided into two parts, according to whether a federal or state tax issue is being discussed. The topics covered are:

A. Federal Income Tax Issues

- (1) The difference between interest and dividends;
- (2) Depreciation and rapid amortization; and
- (3) The federal investment tax credit.

B. State Income Tax Issues

- (1) The state investment tax credit and
- (2) Depreciation.

It should be noted that this handbook covers only the tax effects of financing pollution control equipment. There is no attempt to investigate relocation or expansion, so the tax effects of locating in a new city, expanding, or hiring certain types of employees are specifically not covered. Neither are sales taxes, real property taxes, or other taxes. The thrust here is on federal and state income taxes and how the acquisition of pollution control equipment affects these taxes. All of the tax effects discussed here are subject to change at any time by the legislature, particularly federal tax law which is currently undergoing significant revision. This appendix is only a summary of these effects and should not be used as a substitute for consultation with tax specialists such as lawyers or accountants.

A. Federal Income Taxes

(1) The Difference between Interest and Dividends

In the discussion of privately obtained funds in Chapter 2, it was noted that interest payments on debts were tax deductible but that principal payments and dividend payments were not. This is a major distinction between loans and the sale of equity capital. But how significant is this distinction?

For simplicity, assume that a business earns \$100,000 per year and wants to compare the first-year cost, after taxes, of paying off a loan in monthly installments of \$1000 (\$900 of which is interest and \$100 of which is principal in the first year) and paying the same total amount, \$12,000 a year, in dividends. The after-tax cost is not the same. In the case of the loan, \$1200 (\$100 times 12 payments) is not tax deductible, but the other \$10,800 (\$900 times 12 payments) is. This means that the \$10,800 can be deducted from income for tax purposes. Assuming a 50% tax bracket (which is approximately the tax rate to which most successful firms are subject), 50% of this \$10,800 will be saved in taxes. The cost of the loan payment, after-tax, is \$12,000 minus \$5,400 or \$6,600.

The dividend payments are not tax deductible and the tax savings is therefore 0. The after-tax costs of \$12,000 in dividends is \$12,000, almost double the after-tax cost of the loan.

This example was chosen to emphasize the differences in after-tax costs of debt and equity capital, but any example of equal payments of debt servicing and dividends will show the former to be less expensive to the company. This shows why most companies choose to have some debt on their books. This does not mean, however, that everything should be financed by debt. Too much debt makes a business too risky since it will have very high required payments on their debt. Common stock generally does not require dividends to be declared; they are at the discretion of the board of directors. Thus, the goal of most managers is to have a healthy mix of both debt and equity.

(2) Depreciation and Rapid Amortization

The Internal Revenue Code generally does not allow a business to deduct from its income in one year the entire purchase price of equipment designed to be used for a long term. The Code does allow a reasonable allowance, called depreciation, to be deducted each year for exhaustion, wear, tear, and obsolescence. It is not necessary that the firm accurately try to determine the amount of wear and tear each year because the Internal Revenue Service has established formulae which may be used to determine the amount of depreciation allowed.

Most methods of depreciation result in approximately the same total amount of deductions (depreciation) over the life of the asset, but most firms want to depreciate their equipment for tax purposes as quickly as possible since

saving taxes early means that the savings can be invested. Even if the same overall tax payments result, early depreciation means more for the firm in the end because of the benefits of this investment.

Because earlier and hence faster depreciation is desirable, in order to encourage pollution control, the U.S. Congress permits especially fast depreciation for certain pollution control equipment. This fast depreciation is called "rapid amortization." It allows firms to depreciate qualifying pollution control equipment over 60 months (five years). To qualify, the equipment must be certified by the Massachusetts Department of Environmental Quality Engineering as conforming to the state air pollution control program and by the EPA as conforming to federal regulations and as furthering the general air pollution control policy of the U.S. In addition, the equipment must be installed in a plant that was in operation before January 1, 1976.

For particularly long-lived equipment, with a useful life of 15 years, only a portion of the cost of the equipment can be amortized.¹ Even here, however, rapid amortization is of potentially great benefit in tax savings in the early years of the life of the equipment.

(3) The Federal Investment Tax Credit

The federal investment tax credit allows a firm to reduce its taxes when it purchases property subject to depreciation. This credit acts as an incentive to invest capital in such property. The property covered is very broad and includes pollution control equipment. No certification from EPA or any other pollution control agency is required since any depreciable property qualifies for the credit.

The amount of the investment tax credit is up to 10 percent of the total cost of the property.² This amount is a direct reduction of, a credit against, taxes due and is in addition to any depreciation or rapid amortization. The phrase "up to 10 percent" is used because there are some limits on this amount. For example, if the useful life of the equipment purchased is less than seven years, only a portion of the maximum investment tax credit can be taken, as shown:

¹This portion of the cost that can be depreciated over five years is the fraction $15/X$, where X is the useful life of the equipment in years.

²All new property can be included, but credit is allowed on only \$100,000 worth of used property in any one taxable year.

<u>Useful Life</u>	<u>% of Cost of Property Qualifying for Credit</u>
Under 3 years	0
3 years but less than 5 years	33-1/3%
5 years but less than 7 years	66-2/3%
7 years or more	100%

If the firm chooses to use rapid amortization for pollution control equipment discussed above, however, and if the useful life of the equipment is five years or more, then 100% of the cost of the project qualifies for the credit.³ But if the firm uses rapid amortization for equipment with a useful life of five years or more and finances the equipment with industrial revenue bonds, only one-half of the investment tax credit is allowed.

There are also some limitations on the use of the investment tax credit based on how much tax the firm would have to pay without application of the credit (such as when the amount of the credit is close to or exceeds the amount of tax which would be due without the credit). These are quite complex. It is recommended that, before making any major purchases of pollution control equipment, the advice of tax specialists be sought.

B. State Income Tax

(1) The State Investment Tax Credit

Massachusetts manufacturing corporations are permitted to take an investment tax credit of three percent of the cost of tangible property acquired in the taxable year. This includes pollution control equipment. Like the federal investment tax credit, this credit is against the corporate tax (this time, against the state tax). The credit may not reduce the amount of tax due below the minimum tax for corporations, but it may be carried forward for use in future years if it cannot be used in the present taxable year. This credit is scheduled to expire in 1982.

(2) Depreciation

The Massachusetts corporate tax provisions, like the federal Internal Revenue Code, generally do not allow the cost of a long-term asset to be deducted in the year it is purchased. It must be depreciated over time, taking into account its useful life. The investment tax credit just discussed is permitted in addition to this depreciation.

³This applies only to equipment purchased after December 31, 1978. It should also be noted that only one-half of this credit is allowed if rapid amortization is used for equipment purchased after December 31, 1976 but before December 31, 1978.

For certain pollution control equipment purchased before January 1, 1980, deduction of the entire cost of the equipment in the year of acquisition was permitted. This deduction was not renewed for purchases past that date, so pollution control equipment is now subject to the usual depreciation rules.

For further information on the state investment tax and depreciation, contact:

Bureau of Corporations
Department of Revenue
100 Cambridge Street
Boston, MA 02202
(617) 727-4274

APPENDIX B

OTHER FINANCING ASSISTANCE

APPENDIX B

Other Financing Assistance

The main body of this handbook has covered the major financing programs available for pollution control equipment in Boston with EDIC/Boston, BLDC, BIDFA, SBA, and MIFA assistance. There are, however, other programs available for Boston firms and there are agencies which will help Massachusetts firms located outside of Boston. This appendix will list the names and addresses of two kinds of agencies:

- (1) Massachusetts agencies able to help firms (both in and outside of Boston) with programs not described in Chapters 1 through 4; and
- (2) Agencies in major Massachusetts cities other than Boston which can help firms with such programs as SBA financial assistance.

A. Other Massachusetts Programs

- (1) Massachusetts Capitol Resource Company (MCRC)
Mr. Daniel Holland, President
545 Boylston Street
Boston, MA 02116
(617) 535-3900

The MCRC provides unsecured debt and equity financing to small- and medium-sized firms unable to obtain financing on similar terms elsewhere.

- (2) Massachusetts Technology Development Corporation (MTDC)
Mr. William Aikman, President
131 State Street
Boston, MA 02109
(617) 723-4920

The MTDC supplies financial and management assistance to start-up and early-stage Massachusetts companies in the high technology industries.

- (3) Massachusetts Business Development Corporation (MBDC)
Mr. Fred Stockwell, Executive Vice President
One Boston Place
Boston, MA 02108
(617) 723-7515

The MBDC furnishes loans for fixed assets and working capital to businesses unable to obtain conventional financing.

- (4) Massachusetts Community Development Finance Corporation (CDFC)
Mr. Thomas Wharton, Executive Director
Suite 600
131 State Street
Boston, MA 02109
(617) 742-0366

The CDFC invests money in business undertakings sponsored by community development corporations in economically depressed areas of Massachusetts.

B. Agencies Outside of Boston

- (1) Farmers Home Administration
Massachusetts State Office
358 North Pleasant Street
Amherst, MA 01002
(413) 549-2820

A variety of grants, loans, and loan guarantees from the Farmers Home Administration are available to aid economic development in "rural" areas.

- (2) Brockton Regional Economic Development Corporation
One Centre Street
Brockton, MA 02401
(617) 583-6700
- (3) Plymouth Industrial Development Corporation
130 Court Street
Plymouth, MA 02361
(617) 746-3600
- (4) Somerville Local Development Corporation
City Hall - 93 Highland Avenue
Somerville, MA 02143
(617) 625-6600, ext. 138
- (5) South Shore Economic Development Corporation
(covering Norfolk County)
36 Miller Stile Road
Quincy, MA 02169
(617) 479-1111

- (6) Springfield Small Business Assistance, Inc.
Bay State West Plaza - Suite 600
1500 Main Street
Springfield, MA 01115
(413) 734-5671

- (7) Bay Colony Development Corporation (covering entire
state except Duke and Nantucket)
93 Border Street
West Newton, MA 02165
(617) 244-5586

The agencies listed as (2) through (7), and the BLDC discussed in the main text, are the agencies in Massachusetts certified under the SBA 503 program at the time of this writing.

